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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-KSB

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

For the fiscal year ended December 31, 2007

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

For the transition period from _____ to _____

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RESPONSE GENETICS, INC.

(Name of Small Business Issuer in Its Charter)

Delaware	**2835**	**95-3525548**
(State or Other Jurisdiction of Incorporation or Organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

1640 Marengo St., 6th Floor
Los Angeles, California 90033
(323) 224-3900
(Address and Telephone Number of Principal Executive Offices)

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

Title of each class	Name of each exchange on which registered
Common Stock, par value 0.01 per share	Nasdaq Capital Market

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

None.

Check whether the issuer is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. ☐

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

Check if there is no disclosure of delinquent filers in response to Item 405 of Regulation S-B contained in this form, and no disclosure will 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-KSB or any amendment to this Form 10-KSB. ☐

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

State issuer's revenues for its most recent fiscal year. $7,789,789

State the aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was sold, or the average bid and asked price of such common equity, as of a specified date within the past 60 days. (See definition of affiliate in Rule 12b-2 of the Exchange Act.)

Note: If determining whether a person is an affiliate will involve an unreasonable effort and expense, the issuer may calculate the aggregate market value of the common equity held by non-affiliates on the basis of reasonable assumptions, if the assumptions are stated.

(ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PAST FIVE YEARS)

Check whether the issuer has filed all documents and reports required to be filed by Section 12, 13 or 15(d) of the Exchange Act after the distribution of securities under a plan confirmed by a court. Yes ☐ No ☐

(APPLICABLE ONLY TO CORPORATE REGISTRANTS)

As of March 28, 2008, there were 10,239,276 shares of the issuer's common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

None.

Transitional Small Business Disclosure Format (Check one): Yes ☐ No ☑

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Item 1. Description of Business

Overview

Response Genetics, Inc. was formed as a Delaware corporation in September 1999. We are a life sciences company engaged in the research, and development of innovative clinical diagnostic tests for cancer based on our proprietary technologies. Our mission is to provide personalized genetic information that will help guide physicians and patients in choosing the treatment from which a given patient is most likely to benefit. We currently generate revenues primarily from sales of our proprietary analytical pharmacogenomic testing services of clinical trial specimens to the pharmaceutical industry. We launched our first diagnostic tests under the brand name ResponseDx™ for non small cell lung cancer and colon cancer.

Our patented technologies enable us to reliably and consistently extract the nucleic acids RNA and DNA from tumor specimens that are stored as formalin-fixed and paraffin-embedded, or FFPE, specimens and thereby to analyze genetic information contained in these tissues. This is significant because the majority of patients diagnosed with cancer have a tumor biopsy sample stored in paraffin, while only a small percentage of patients' tumor specimens are frozen. Our technologies also enable us to use the FFPE patient biopsies for the development of diagnostic tests. To our knowledge, we are the first company to generate clinically relevant information regarding the risks of recurrence of cancer or chemotherapy response using approximately 30,000 genes available from microarray profiling of FFPE specimens.

Clinical studies have shown that not all cancer chemotherapy works effectively in every patient, and that a number of patients receive therapy that has no benefit to them and may potentially even be harmful. Our goal is to provide physicians and cancer patients with a means to make informed, individualized treatment decisions based on genetic analysis of tumor tissues.

Response DX™

The outcome of cancer chemotherapy is highly variable due to genetic differences among patients. Some patients respond well with tumor shrinkage and increase in life span. Other patients do not obtain benefit from the same therapy but may still experience toxic side effects as well as delay in effective treatment and psychological trauma.

At present most chemotherapy regimens are administered without any pre-selection of patients on the basis of their particular genetics. However recent development of very sensitive molecular technologies has enabled researchers to identify and measure genetic and biochemical factors in patients' tissues that can predict the probability of success or failure of many currently used anti-cancer agents. In order to increase the chances of a better chemotherapy outcome for cancer patients, RGI is developing genetic tests that will measure predictive factors for tumor response in tumor tissue samples. We have begun offering tests for non-small cell lung cancer (NSCLC) and colorectal cancer (CRC) patients' tumor tissue through our CLIA registered laboratory and we anticipate offering additional tests for esophageal and pancreatic cancer in the future.

Our technology

All of our tests are based on the polymerase chain reaction (PCR), which is a sensitive, precise and reliable technology that gives numerical values that are not dependent on subjective interpretation by pathologists, as are antibody-based tests. We developed and extensively validated technology to perform quantitative PCR analysis of gene expressions in formalin-fixed paraffin embedded (FFPE) tumor tissues. We have used our technological expertise in many projects for the pharmaceutical industry and for many collaborative scientific studies. The benefit of our capability for patients is that in many cases, no tissue samples other than the pre-treatment diagnostic biopsy will be required for the biomarker analysis.

We developed ResponseDX in part by using our technologies to extract genetic information from FFPE tumor specimens. Our technology provides gene expression information for each patient's tumor tissue specimen. Our mission is to help doctors and patients choose the most effective cancer treatment options - the first time - based on a patient's unique genetic code. We assess non-small cell lung cancer (NSCLC) and/or colorectal cancer (CRC) patients' tumor tissue specimens through our ResponseDX: Lung™ and ResponseDX: Colon™ test suites. The test results may help doctors and patients decide the best course of treatment for patients.

Since February 2008, ResponseDX: Lung and ResponseDX: Colon tests are commercially available through our laboratory located in Los Angeles, California, which is registered under the Clinical Laboratory Improvement Amendments of 1988 (CLIA).

ResponseDX: Lung™ and ResponseDX: Colon™

ResponseDX: Lung™ comprises four tests: ERCCI, RRMI, KRAS Mutation and EGFR Amplification and ResponseDX: Colon™ comprises three tests: ERCCI, KRAS Mutation and TS. The Response DX test measures the RNA expression of ERCCI and RRMI by RT-PCR from a patient's tumor tissue. PCR analysis of DNA from the patient's sample is used to determine EGFR amplification and KRAS mutational status. The ERCCI test is a test for the probability of response to platin-based therapies and the analysis of RRMI tests for the probability of response to gemcitabine-based therapies. We determine the ranges of ERCCI expression and RRMI expression that classify a patient's tumor into categories of the low and high probability of responding to platin-based therapy and gemcitabine-based therapies, respectively. The EFGR Amplitication test assesses the probability of benefit from EGFR-directed therapy. We determine if the EGFR gene is amplified, which is associated with better response to EGFR-based therapy. The KRAS gene mutation test identifies tumors that have low probability of response to EGFR-directed therapy. This test utilizes a 7 mutation panel to identify KRAS gene mutations in a sample that are associated with low response to EGFR-directed therapy. The TS gene expression test measures the probability of response to 5-fluorouracil (5-FU)-based chemotherapy.

Diagnostic Tests for Other Cancers

In addition to ResponseDx: Lung and ResponseDx: Colon, we are developing and intend to commercialize tests of other types of cancer that identify genetic profiles of tumors that are more aggressive and recur rapidly after surgery. We also are identifying genetic profiles of tumors that are more or less responsive to a particular chemotherapy. Following the development of tests to predict the risk of recurrence after surgery, we intend to develop tests to determine the most active chemotherapy regimen for the individual patient at risk. Once developed and after obtaining any necessary regulatory approvals, we intend to leverage our relationships in the healthcare industry to market, sell or license these tests as a means for physicians to determine the courses of cancer treatment.

Expansion of our pharmacogenomic testing services business

We have started the expansion of our pharmacogenomic testing services business into major markets of the healthcare industry outside of the United States. We have established service laboratories in Europe and Japan, and are working to establish a service laboratory in China, through collaboration with some of our current clients in the pharmaceutical industry. The pharmaceutical industry is in need of standardized integrated worldwide analysis of clinical trial specimens. It is important to the pharmaceutical industry and the regulatory agencies that the same analytical methods are used for each clinical trial sample around the world so that the data can be easily compared and used for global drug development. Also, export of clinical trial specimens to the United States is restricted from some areas of the world, such as China. Our goal is to offer an analysis of patient specimens and generate consistent data based on integrated common platforms and technology into the major markets of the healthcare industry including outside of the United States. To our knowledge, we will be the only company offering consistent pharmacogenomic analysis to the industry across geographical regions.

There are no assurances that the Company will be able to continue making its current ResponseDx tests available, or make additional ResponseDx tests available; will be able to develop and commercialize tests of other types of cancer; or will be able to expand our pharmacogenomic testing service business.

Except for the historical information contained herein, this Annual Report on Form 10-KSB contains or may contain, among other things, certain forward-looking statements, within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements involve significant risks and uncertainties. Such statements may include, without limitation, statements with respect to the Company's plans, objectives, projections, expectations and intentions, such as the ability of the Company to analyze cancer samples, the potential for using the results of this research to develop diagnostic tests for cancer, the usefulness of genetic information to tailor treatment to patients, the ability of the Company to make its ResponseDX: Lung and ResponseDX: Colon tests available in a number of institutions, and other statements identified by words such as "projects," "may," "could," "would," "should," "believes," "expects," "anticipates," "estimates," "intends," "plans" or similar expressions.

These statements are based upon the current beliefs and expectations of the Company's management and are subject to significant risks and uncertainties, including those detailed in this Annual Report on Form 10-KSB filed with the Securities and Exchange Commission. Actual results, including, without limitation, actual sales results, if any, or the application of funds, may differ from those set forth in the forward-looking statements. These forward-looking statements involve certain risks and uncertainties that are subject to change based on various factors (many of which are beyond the Company's control).

Background

The nature of cancer

Cancer is basically an uncontrolled growth of cells and expansion of tissues that can invade and destroy the function of adjoining and even distant organs. In contrast to infectious diseases which are entirely caused by outside agents such as viruses and bacteria, cancer is a disease that arises from genetic breakdown within our own cells. To be sure, this internal cellular malfunction can also be triggered or promoted by external causes such as chemicals in tobacco smoke or asbestos exposure or even viruses, but in many cases, cancer also seems to occur spontaneously because of an inherent instability of the human genome. The problem with cancer from a treatment point of view is that it is not one disease but one of almost infinite variety. Due to the vast biochemical complexity of human cells, there are numerous ways by which loss of control of cell growth can occur, and this diversity of pathways leads to cancers with varying properties: growth rate, invasiveness of adjoining tissues, the ability to develop a new vascular system, metastatic potential, and responsiveness to various therapies. Cancers arising in different organs (e.g., colon, breast or lung) and tissues within these organs have distinct biological properties depending on the triggering event and pathway of tumor development. For example, lung cancers associated with smoking are different from those that develop in non-smokers and cancers of the esophagus associated with excessive alcohol and smoking consumption are different from those associated with chronic gastro-esophageal acid reflux.

The worldwide market for pharmacogenomics

Human beings are about 99.9% identical in their genetic makeup, with the remaining 0.1% responsible for their unique individual characteristics. Analyzing these naturally occurring genetic differences may enable scientists to understand the variability that contributes to physiological traits, including cancer susceptibilities and the progression of cancer. The variation in several genes affects each individual's risk of cancer development, the level of tumor aggressiveness, the probability of metastasis, and the probability of survival. Natural genetic variations also lead to differences in the way that drugs are absorbed, metabolized and incorporated by the body, and thus affect the relative efficacy of drugs in different individuals.

Understanding genetic variations and discovering the correlations of the genes that are associated with clinical outcomes constitutes the field of pharmacogenomics and underlies the concept of personalized medicine. Pharmacogenomics promises to help researchers produce better predictive and diagnostic molecular tests and drugs which, in turn, will enable physicians to implement personalized medicine by selecting treatments and drugs based on individual needs of each patient. Personalized medicine may offer a number of key benefits, including earlier interventions, more efficient drug development and more effective therapies.

According to a 2005 report published by BCC Research, the worldwide market for pharmacogenomics reached $1.24 billion in 2004 and is projected to rise at an average annual growth rate of 24.5% to reach $3.7 billion by 2009. Diagnostics comprised 39.2% of the total market in 2004 and are projected to grow at 27.7% per year to increase its share to 44.6%, or $1.65 billion in 2009.

We believe that the application of pharmacogenomics to cancer treatment represents a significant opportunity, as new cancer cases are estimated to increase by 50% and approach 15 million worldwide by the year 2020, according to a new World Cancer Report by the World Health Organization. According to this report, lung cancer accounts for 1.2 million new cases worldwide annually; colorectal cancer for 940,000; esophageal cancer for 410,000; pancreatic cancer for 216,000. Cancer of unknown primary affects about 5% of all cancer patients. We focus our research efforts on developing diagnostic tests for each of these common cancer types. The National Institutes of Health estimates overall costs for cancer in 2005 at $210 billion, including $74.0 billion for direct medical costs.

Benefits of personalized medicine

Treatment of the disease presents a major challenge because of the wide biological variations among cancers. As such, there is no one standard therapy or approach for treating the disease that can be recommended to cancer patients. Cancers originating from various tissues or organ sites require specialized therapies; but even cancers emanating from the same tissue type may call for different treatment modalities because of varying degrees of disease progression.

To help choose among treatment options, physicians try to determine the extent to which the cancer has spread to other parts of the body. Patients are assigned to different stage categories ranging from I to IV depending on the degree of invasion of the tumor into the adjacent tissues, the number of lymph nodes with detectable cancer cells, and the presence of distant metastasis. For instance, Stage I lung cancer is confined to the lung and has no lymph node involvement. Stage II lung cancer has regional node involvement that may not be completely removed by surgery. Later stage tumors have spread to more distant sites; Stage III to the more distant mediastinal lymph nodes and Stage IV to the other organs. In addition to staging, tumors are also graded according to cell type. Cells that are well differentiated closely resemble mature, specialized cells and indicate a good prognosis (predicted survival time), whereas cells that are undifferentiated represent a malignant population associated with poor prognosis.

Once the prognosis for a patient is determined by taking into account the stage of the tumor and the grade of malignancy of the cells, healthcare providers can determine the appropriate treatment options available to a particular patient. For example, current "standard of care" clinical guidelines for non-small cell lung cancer (NSCLC) recommend resection (surgery) and then observation for Stage I cancer whereas Stage II patients are candidates for chemotherapy following the surgery (adjuvant chemotherapy). While the overall survival for Stage I patients is quite good, approximately 50% will suffer early relapse within five years. The subset of Stage I lung cancer patients destined for early relapse might well benefit from adjuvant chemotherapy, but first they have to be identified as being in the high-risk category prior to treatment. It is not feasible to treat all Stage I NSCLC patients with adjuvant therapy in order to capture the high-risk ones because the low risk patients would be subjected to needless, expensive and potentially harmful overtreatment with toxic drugs. Similar issues arise in the other major cancers.

Current staging and grading methods, which are based largely on subjective histopathologic examination (i.e., visual inspection by a pathologist) of tissues or cells, often fall short and fail to adequately predict malignancy aggressiveness. This suggests that the key to distinguishing the low-risk from the high-risk patients must lie in understanding the genetic variations between these groups at the molecular level. The study of how genes specify individual characteristics is called "genomics."

The "genome" is the entire set of human genes which comprises the DNA in the nucleus of the cell and directs the production of proteins, the molecules that carry out our life functions. The sequence of bases of a gene in DNA provides the instructions or the blueprint for the subsequent sequence of amino acids in the proteins. However, the information from DNA is transmitted to the protein synthesizing machinery through the intermediary molecule messenger RNA (mRNA), which is complementary to the gene sequences in the DNA. The mRNA can be transcribed any number of times from the DNA and thus can be "expressed" in various quantities. The base sequence information in the mRNA is subsequently "translated" into the amino acid sequence of the protein, but the number of mRNA molecules that have been transcribed (the "gene expression") also specifies the number of protein molecules that are made.

Analyzing naturally-occurring inherited differences in DNA base sequence (polymorphism) enables scientists to catalogue and understand the variability in the genome and how that variability contributes to physiological traits, including disease susceptibilities. Mutations (changes in sequence that develop in otherwise normal cells) in DNA can contribute to tumor formation. Analyzing levels of mRNA, or gene expression, provides a way to understand the function or expression of the genome. The gene-expression pattern for a tumor cell might show increased mRNA levels for genes responsible for tumor development as well as decreased expression of tumor-suppressor genes. Examining the expressions of many genes (gene expression profiling) is used to identify the group of genes that are abnormally expressed in each stage of cancer formation. Patterns of gene expression may help to classify the cancer subtype, its prognosis, or its likely response to a therapeutic regime.

Until recently, however, it was very difficult to characterize genetic differences at the molecular level because the technology did not exist either for rapid analysis of the genetic sequence or for precise measurement of various mRNA molecules in biopsy tissues. This situation dramatically changed with the invention of PCR and gene expression microarrays. Scientists have applied gene expression profiling to identify markers of high risk of relapse for patients with various types of cancer. Studies of breast, lung, lymphoma and other cancers suggest that there are different sets of genes expressed in various tumor tissues that are associated with specific clinical outcomes. Categorizing these expressed sets of genes, as we do with our technologies, can offer a powerful complementary approach to clinical or histopathological examination. We believe that this approach will help researchers produce better predictive and diagnostic molecular tests and drugs which in turn, will help physicians select treatments and drugs based on individual needs of each patient.

Personalized medicine offers a number of key benefits:

• *Better diagnoses and earlier interventions.* Molecular analysis can help guide treatment choices by determining precisely which variant of a disease a person has, or whether he or she is susceptible to drug toxicities. For preventive medicine, such analysis could improve the ability to identify which individuals are predisposed to develop a particular condition and guide decisions about interventions that might prevent it, delay its onset or reduce its impact.

• *More efficient drug development.* A better understanding of genetic variations in tumor tissue could help scientists identify new disease subgroups and their associated molecular pathways, and design drugs that target them. Molecular analysis could also assist in the identification of patients better suited for inclusion in, or exclusion from, late-stage clinical trials — potentially facilitating the identification and approval of drugs that might otherwise be abandoned because they appear to be ineffective in the larger patient population.

• *More effective therapies.* Currently, physicians often have to use trial and error to find the most effective medication for each patient. As we learn more about which molecular variations best predict how a patient will react to a treatment, and develop accurate and cost-effective tests, doctors will have more information to guide their decisions about which medications are likely to work best. In addition, testing could help predict the best dosing schedule or combination of drugs for a particular patient.

Current technologies to measure gene expression

Polymerase Chain Reaction (PCR). The PCR is a technique that makes it possible to amplify a specific DNA segment thousands or even millions of times, thereby making it possible to achieve a quantitative measure of the amount of a particular mRNA species in a tissue specimen. The PCR method is sensitive, accurate and precise and is best suited for analysis of a limited number of genes in a large set of specimens.

Gene expression microarrays. Gene expression microarray technology is based on the principle of "capturing" specific RNA sequences extracted from a patient sample by binding to complementary sequences placed on a silicon wafer chip. The specific RNA sequences are labeled with a dye that emits a stronger or weaker signal when "captured" on the chip depending on whether the gene is expressed at a high or low level. Since sequences from the majority of the human genome (approximately 30,000 genes) are placed on the chip, information about gene expression from all of these genes becomes available to the researcher by this technology. Microarrays are commonly used to simultaneously study large numbers of genes and their regulation. The power of the microarray lies in its ability to measure the expression of many thousands of genes simultaneously. The use of gene expression microarrays from mRNAs has grown rapidly in academia, medicine and the healthcare industry.

The recent microarray- and RT-PCR-based studies showing that gene expression profiles can predict eventual clinical outcomes (such as long or short survival) for patients have generated great interest because they demonstrated the potential of gene expression profiling in cancer prognosis. However, before predictive gene profiles are adopted for individualized therapy, the findings of these initial studies will require independent validation using larger sets of clinical specimens and prospective trials of the markers in a large patient population will be essential. These large number of specimens are readily available from patient biopsies embedded in paraffin. Until recently, microarray analysis of formalin fixed paraffin embedded, or FFPE tumor specimens was not possible.

Our Technologies

The value of the information gained through genetic analysis of tumor specimens suggests that there will be a growing need for this kind of analysis of ever larger numbers of tumor specimens. Prior to the means offered by our technologies, this presented a major obstacle. RT-PCR technology and especially gene expression microarrays are best done using a large quantity of nearly full-length RNA recovered from fresh-frozen clinical specimens; yet fresh-frozen specimens are not generally available except in a very limited number of cases in which collection of fresh tissues is a specific part of a clinical trial. The majority of hospitals and clinics lack the infrastructure to store and archive frozen tissues. Rather, clinical specimens are usually available as formalin fixed paraffin embedded specimens, or FFPE specimens. Fixation and paraffin embedding allow staining and visualization of tumor cells by pathologists, making FFPE specimens more useful to pathologists than fresh frozen tissue. Also, once embedded in paraffin, the tissue remains stable indefinitely, thus allowing for easy storage. The end result is that, unlike fresh-frozen tissues, large tissue banks of archival FFPE with long-term follow-up are extensively available and easily accessible.

Although most clinical tissue specimens are paraffin-embedded, until recently RNA in FFPE tissue specimens has not been considered useable for genetic profiling studies because the isolation of RNA from FFPE with methods that have been published in the past is unreliable and inconsistent in terms of RNA fragment size. Whereas RNA isolated from fresh tissues is generally close to full-length, the fixation process degrades the RNA in the tissue and the more extreme extraction conditions degrade the RNA further into even shorter fragments. Short fragment RNA from FFPE has not given consistently good results with currently available gene expression microarray chips and is also more difficult to use in RT-PCR. For these reasons, all important diagnostic biomarker studies to date involving gene expression microarrays and most studies involving RT-PCR have used fresh-frozen tissue specimens and thus many have been constrained to analyzing a small number of specimens because of the limited availability of fresh-frozen biopsy tissue. In contrast, almost all patients diagnosed with cancer have a paraffin block stored at the hospital from which they were diagnosed.

We have developed technologies for the extraction of RNA from FFPE tissues which enable us to reliably recover RNA suitable for a variety of applications, such as gene expression research, development of diagnostics, and microarray platforms. We believe our technologies for the first time can provide access to molecular information from the entire vast body of archival tissue specimens from past clinical trials for which clinical outcomes and results are documented. In addition, our technologies permit gene profiling analysis of current clinicals trials, most of which are still using the paraffin embedding technique for tissue specimen storage. For example, our analysis of a clinical trial involving breast cancer in elderly patients illustrates the reliability of our results. We received paraffin blocks from various clinical sites, and we were able to obtain valid data on 401 out of 441 FFPE specimens (91%). Our overall success rates with other sets of specimens typically mirror these results. The factors that cause an unsuccessful analysis are generally related to the prior tumor specimen collection and fixation (e.g. specimen size (i.e. too few cells), the lack of actual tumor tissue present in the specimen, or improper fixation of the tissue specimen), not to any unreliability of the assay itself.

There are approximately 1.4 million patients diagnosed with cancer per year in the United States. We can access molecular information from paraffin blocks that have been stored up to 10 years. Therefore, there are about 14 million specimens in existence in the United States that we potentially could analyze.

RGI-1

Kathleen Danenberg, our President, Chief Executive Officer and director, co-developed and patented (U.S. Patent No. 6,248,535; *Danenberg*, et al., Method For Isolation of RNA From Formalin-Fixed Paraffin-Embedded Tissue Specimens), an extraction method (RGI-1) that allows reliable and consistent isolation of RNA and DNA from FFPE suitable for use in RT-PCR analysis, while she was employed at USC. Using RGI-1, successful RT-PCR quantitation of gene expressions is possible from as little as a single 10-micron section of a paraffin block with over 90% reliability and excellent reproducibility. We validated our methodology, which particularly addressed issues of recovery of RNA, accuracy, and precision. RGI-1 allows for rapid extraction of RNA with little or no DNA contamination, which makes it suitable for large-scale analysis. We have used RGI-1 successfully to quantify gene expressions in over 45,000 FFPE specimens received by us from various pharmaceutical companies since 2001 as well as in our own research projects. We and others have published over fifty papers and articles based on data generated using RGI-1.

We isolated RNA from FFPE tissues by RGI-1 and from matched sets of fresh-frozen tissues of the same tumor specimens. We quantitated the expression of several genes by RT-PCR. This experiment shows that if RT-PCR analysis is done within the guidelines and parameters established by RGI, very similar results are obtained from FFPE specimens when compared to frozen specimens data.

RGI-2

RNA isolated by RGI-1 is fragmented by the heating process, but may be analyzed by the PCR process. The PCR assay works by binding DNA primers, which are specific sequences of DNA, at various sites on the gene and copying these sequences through PCR. These sequences can be designed to bind closely together to accommodate short fragments of RNA. However, the microarray technology works best through binding of longer RNA sequences. We have developed a second technology, RGI-2, designed to maximize the isolation of longer fragments of RNA. This technology does not replace RGI-1, since it is less rapid and may contain a small amount of genomic DNA. Using this technology, the average length of RNA fragments recovered from FFPE is substantially increased. The RNA preparations obtained with RGI-2 produced similar results on gene expression microarrays as RNA isolated from fresh-frozen tissues. Therefore, we believe that this new technology, which we are in the process of patenting, enables profiling of gene expression by microarray of archival FFPE specimens from clinical studies.

An essential part of our analytical procedure is the microdissection of tumor specimens to separate tumor from non-tumor tissue. Most tumor biopsy specimens are mixtures of normal and tumor tissue. A specimen may include only a small percentage of tumor cells. The molecular biology of tumor and normal tissues may be considerably different and mixing the two may yield false results for gene expression profiling. To accurately measure gene expression and establish expression profiles of various pathologic lesions, it is important to analyze RNA from tumor cells. With the assistance of a pathologist, we can identify the tumor cells and isolate them, either manually or with laser-capture micro-dissection. Since we are able to work with FFPE we can more accurately dissect out the tumor cells from the normal cells than would be possible with frozen tissue because the resolution in FFPE is better than in frozen tissue.

We also can use our technologies to isolate DNA from the same specimen used to obtain RNA. Alterations in DNA sequence that are inherited (polymorphisms) as well as acquired (mutations) are often associated with disease susceptibilities, treatment response, and survival. DNA polymorphisms and mutations may change the gene expression pattern of a cell in specific ways. Characterization of gene expression profiles associated with various DNA sequence alterations may lead to a better understanding of disease mechanisms and may suggest new and better treatments. Our technique for isolating DNA and RNA from the same specimen facilitates such studies because in many cases the amount of available tissue may not be sufficient for separate isolation of DNA and RNA. In addition, measuring gene expressions and DNA sequence alteration in the same cells rather than in different areas of the tissue specimen is likely to give more valid data.

We believe these technologies may be used as a powerful tool to establish diagnostic gene sets for predicting a patient's likelihood of survival under a particular treatment regimen. Such diagnostic tests will provide the opportunity for choosing the best treatment prior to therapy and thus enable application of personalized medicine based on each person's unique genetics.

Our Strategy

Our goal is to provide cancer patients and their physicians with the means to make informed, individualized treatment decisions based on genetic analysis of tumor tissues. Using our two technologies for extraction of RNA from FFPE tissue, we can provide personal genetic information that will help guide physicians and cancer patients in choosing the treatment from which the patient is most likely to benefit. We can also analyze specific RNAs rapidly by PCR or the entire genome by using microarray methods. Elements our business strategy include:

Response DX™

The outcome of cancer chemotherapy is highly variable due to genetic differences among patients. Some patients respond well with tumor shrinkage and increase in life span. Other patients do not obtain benefit from the same therapy but may still experience toxic side effects as well as delay in effective treatment and psychological trauma.

At present most chemotherapy regimens are administered without any pre-selection of patients on the basis of their particular genetics. However recent development of very sensitive molecular technologies has enabled researchers to identify and measure genetic and biochemical factors in patients' tissues that can predict the probability of success or failure of many currently used anti-cancer agents. In order to increase the chances of a better chemotherapy outcome for cancer patients, we are developing genetic tests that will measure predictive factors for tumor response in tumor tissue samples. We have begun offering tests for non-small cell lung cancer (NSCLC) and colorectal cancer (CRC) patients' tumor tissue through our CLIA registered laboratory and we anticipate offering additional tests for esophageal and pancreatic cancer in the future.

Our technology

All of our tests are based on the polymerase chain reaction (PCR), which is a sensitive, precise and reliable technology that gives numerical values that are not dependent on subjective interpretation by pathologists, as are antibody-based tests. We developed and extensively validated technology to perform quantitative PCR analysis of gene expressions in formalin-fixed paraffin embedded (FFPE) tumor tissues. We have used our technological expertise in many projects for the pharmaceutical industry and for many collaborative scientific studies. The benefit of our capability for patients is that in many cases, no tissue samples other than the pre-treatment diagnostic biopsy will be required for the biomarker analysis.

ResponseDX: Lung™ and ResponseDX: Colon™

We offer ResponseDX test suites as clinical laboratory tests, where we analyze tumor tissue samples in our laboratory and provide physicians with genomic information specific to the patient's tumor. Currently, we assess non-small cell lung cancer (NSCLC) and/or colorectal cancer (CRC) patients' tumor tissue specimens through its ResponseDX: Lung™ and ResponseDX: Colon™ test suites. The test results may help doctors and patients decide the best course of treatment for patients.

ResponseDX:Lung™ comprises four tests - ERCC1, RRM1, KRAS Mutation and EGFR Amplification.

ERCC1 gene expression: Cisplatin and carboplatin are widely used in combination with other drugs to treat non-small cell lung cancer (NSCLC). DNA crosslinks formed by the platin drugs are repaired by the nucleotide excision repair pathway. A critical gene in this pathway is excision repair complementing factor 1 (ERCC1). Low expression of ERCC1 is a favorable indicator for tumor response to platinum therapy whereas a high level means that the tumor is likely to be resistant due to its increased DNA repair capacity. ERCC1 is one of the most validated predictive markers for tumor response to chemotherapy based on both retrospective and prospective studies. We have determined ranges of ERCC1 expression values that will optimally classify tumors into categories of low and high probability of response to platinum-based therapy. The ERCC1 test can help doctors to make informed decisions about whether to recommend platinum versus non-platinum therapies for NSCLC. Non-platinum therapies have shown results comparable to platinum-based therapies but generally have lower toxicities.

RRM1 gene expression: Gemcitabine is one of the drugs currently used to treat NSCLC, often in combination with cisplatin. The target of this drug is the enzyme ribonucleotide reductase subunit 1 (RRM1). Published studies have shown that patients treated with gemcitabine-based therapy with low RRM1 expression in their tumors have significantly longer median survival than those with high levels. Measuring RRM1 and ERCC1 together may be an especially effective predictor of the combined gemcitabine/cisplatin therapy in NSCLC.

EGFR copy number: The epidermal growth factor receptor (EGFR) is involved in cell growth as well as cancer development. EGFR is the target molecule for many recently-developed anti-cancer drugs, including gefitinib and erlotinib, which are used in the treatment of NSCLC. When cancer develops, the number of copies of the EGFR gene in the genome of cancer cells often increases. Recent studies have shown that a high copy number of the EGFR gene lung cancer patients means increased likelihood of response to gefitinib and erlotinib.

***KRAS* mutations:** Part of the EGFR signaling pathway includes downstream GTPases encoded by the *RAS* genes. The *RAS* gene family has an important role in cancer development. Studies have shown that K-ras gene (*KRAS*) mutations occur in about 30% of human lung adenocarcinomas and are often closely associated with heavy smoking. A mutated *KRAS* is a very strong predictor of non-response and no survival benefit from the EGFR inhibitors gefitinib and erlotinib. Thus, a test for *KRAS* mutation status may be a helpful guide to doctors in making recommendations regarding treatment with EGFR inhibitors, especially to patients with a history of smoking.

ResponseDX: Colon™ comprises three tests - ERCC1, KRAS Mutation and TS:

ERCC1 gene expression: In the case of colorectal cancer (CRC), a widely used combination chemotherapy is oxaliplatin together with 5-fluorouracil (5-FU)(the FOLFOX regimen). For platinum therapies, one of the critical determinants is the excision repair complementing factor 1 (ERCC1). In 2001, RGI participated in a study which showed that ERCC1 mRNA expression levels predicted the clinical outcome of patients with advanced CRC treated with FOLFOX. Since high expression of ERCC1 may actually increase the response rate to irinotecan therapy, the FOLFIRI regimen (5-FU plus irinotecan), which has almost identical

overall efficacy to FOLFOX, provides an alternative option for patients with high tumor levels of ERCC1. The ERCC1 test can help doctors to make informed decisions about whether to recommend FOLFOX or FOLFIRI for treatment of CRC.

***KRAS* mutations:** The EGFR signaling pathway is overexpressed in more than 85% of tumors from patients with metastatic CRC. Cetuximab and panitumumab are two EGFR inhibitors that have shown promising activity as second-line therapy for metastatic CRC and in first-line use in combination with oxaliplatin and irinotecan-based therapies. Mutations in the *RAS* genes occur in about 35% of CRC patients and recent studies have shown that a mutated K-ras gene (*KRAS*) very strongly predicts lack of response as well as shorter survival from both cetuximab and panitumumab therapy. These results suggest that a test for *KRAS* mutation status would be a helpful guide to doctors in making recommendations regarding treatment of CRC patients with these EGFR inhibitors.

Thymidylate synthase (TS) gene expression: Since its introduction 50 years ago, 5-fluorouracil (5-FU) has been a mainstay for chemotherapy of colorectal cancer (CRC). The intracellular target for 5-FU is the enzyme thymidylate synthase (TS), which is rate-limiting for DNA synthesis and thus essential for tumor growth. Many retrospective clinical studies have shown that low levels of expression of TS correlate with an improved response rate and overall survival in CRC patients treated with 5-FU or its derivatives. The same relationship between low TS expression and better clinical outcome is also seen in the 5-FU-based combination chemotherapy of oxaliplatin and 5-FU (FOLFOX), which is now widely used in CRC treatment. However, when 5-FU is used in combination with irinotecan (FOLFIRI), the therapy is still efficacious at high TS levels, thus providing an alternative to FOLFOX for CRC patients with high TS. The TS test can help doctors to make informed decisions about whether to recommend FOLFOX or FOLFIRI for treatment of CRC.

Developing diagnostic tests for assessing the risk of cancer recurrence, prediction of chemotherapy response and tumor classification in cancer patients based on our technologies.

To date, all studies involving microarray analysis could only be done using frozen tissues. Since frozen tissues from clinical trials are available on a very limited basis or often not available at all, this has severely limited the development of diagnostic tests. In contrast, for the reasons discussed above, nearly all patients diagnosed with cancer have a diagnostic tissue specimen stored in a paraffinized state. Therefore, there is a vast number of patient specimens available for the development of a diagnostic test using our technology.

• *Develop a lung cancer recurrence test.* We have developed preliminary gene sets for predicting risk of recurrence in early stage non-small cell lung cancer after surgery through analysis of 80 patient specimens by microarray. This "product candidate" must be validated in a larger set of patient specimens (300-500) in the research setting. Since lung cancer is among the highest frequency cancers around the world, patient specimens are available from many sites. We have chosen to prioritize development of a diagnostic test to predict outcome for this cancer. Generally, Stage 1A and 1B lung cancer is not treated with chemotherapy even though these patients have a 50% risk of recurrence within five years. The patient is considered in remission unless and until the tumor recurs. At the time of recurrence chemotherapy is administered. However, if there were a test for high risk of recurrence, then the physician could treat the patient right away with chemotherapy rather than waiting for the recurrence. These concepts are summarized in the charts below:

Microarray gene expression profiling analysis of FFPE tissues using RGI methodology accurately separated early stage non-small cell lung cancer (NSCLC) patients into a group with high risk (Group 1) and a group with low risk (Group 2) of cancer recurrence. This data was presented by RGI at the American Society of Clinical Oncology (ASCO) meeting on June 5, 2006.

Our plan is to use our proprietary technologies to analyze these archived patient specimens and to correlate the data with clinical outcomes so that we can develop diagnostic tests to predict likelihood of recurrence and responsiveness to chemotherapy.

After preliminary validation of the predictive gene set, a formal clinical trial will be designed to prove the ability of the gene set to accurately predict outcome in additional patients using reagents available from Affymetrix. Since RGI is able to analyze archived FFPE tissue, the patients included in this trial will have been treated years ago, but the outcome will be blinded to RGI by the clinical investigators until the end of the trial. The number of specimens required in this clinical trial will be determined by the accuracy in which the preliminary gene set can predict the first 300-500 specimens in the research study. Based on the current predictability of our gene set, over 90% accuracy, we estimate that the clinical trial will require 500-1000 early stage lung cancer patients. Additional trials may then be launched at various sites to continue to refine the accuracy of our assay.

We believe that it will take approximately one year to gather and analyze the specimens in the research setting and the clinical trial analysis and compliance with potential regulatory requirements will require approximately two to three additional years.

There are a number of diagnostic test developers available to partner with RGI during the clinical trial and test launch process. Roche, with whom we have a strategic alliance, is one of these providers.

• *Develop a lung cancer chemotherapy response test.* In addition to our ResponseDX: lung test and our tests for recurrence of lung cancer, we also intend to continue to develop a test to determine responsiveness to chemotherapy treatment for lung cancer. Of the 169,000 newly diagnosed lung cancer patients in the United States, a majority will receive chemotherapy as an initial treatment. Of those who receive chemotherapy, greater than 90% are given the combination of Paclitaxel/Carboplatin as their first chemotherapy. Paclitaxel/Carboplatin is only effective in about 19% of the patients for whom it is prescribed. We intend to develop a pharmacogenomic test to determine whether an individual patient would be likely to be included in the 19% of NSCLC patients responding to Paclitaxel/Carboplatin or whether the patient should consider a different chemotherapy. Clinical trial specimens are available to us for development of this test, including from Duke University, however, there can be no assurance that we will be successful in developing this test, or if developed, that such a test will be commercially viable.

In June 2006, we presented at the ASCO meeting the first study demonstrating the possibility of a predictive molecular test derived by microarray analysis of patients' FFPE tumor biopsies.

Through these preliminary studies in lung cancer using our technologies for RNA extraction from FFPE, we have produced gene expression profiles which describe the probability of recurrence among patients with early stage lung cancer. Other expression profiles have been generated predicting the risk of metastases. By applying our technologies to early stage non-small cell lung cancer, we have:

• demonstrated the feasibility of creating a preliminary genomic risk prediction model using FFPE tissue, and

• identified the differential pathways indicated by the unique gene signatures between early stage patients surviving less or greater than two years for both adenocarcinomas and squamous cell carcinomas, and demonstrated the feasibility of generating differential pathways from FFPE specimens.

We believe that this study represents the first "biologically significant" result in lung cancer using microarray analysis of FFPE specimens.

The diagnostic test, when implemented, will involve extracting RNA from tumor biopsies using our technologies and measuring a series of genes (a gene set) either by microarray or RT-PCR that have been found to differentiate long and short-term survivors. Levels of expression of these genes will provide information regarding whether the patient is at a higher than normal risk of recurrence. We are currently in the process of refining and validating the predictive gene set for early stage lung cancer recurrence.

In addition to our studies in lung cancer, we have identified similar preliminary predictive gene sets for cancer recurrence after surgery for pancreatic, colon and esophageal cancers. In each of these studies we analyzed patient specimens from early stage cancers and developed predictive gene sets by microarray analysis. We have analyzed an average of 40 specimens from each of these cancer types but will require more research to validate these gene sets.

• *Develop a pancreatic cancer recurrence test.* Similarly to the test for recurrence in lung cancer, we are in the research phase of developing a test for recurrence after surgery for pancreatic cancer. We have analyzed a series of twenty specimens by microarray from patients with pancreatic cancer who were at "high risk" and "low risk" of rapid recurrence after surgery. The patients at "high risk" had a median cancer-free survival of 150 days, where the patients at "low risk" had a median cancer-free survival of 1225 days. Development of a diagnostic tests is planned to determine the patients at "high risk" of rapid recurrence after surgery, so that physicians may choose to treat these patients with aggressive chemotherapy rather than an ineffective surgery at the time of diagnosis. We are in the early research phase of development of this test and will need to analyze more specimens before we test our initial gene set by validation. After the initial validation, a large clinical trial of patients with known outcome to surgery will be analyzed and the ability of our predictive gene set will be tested for accuracy. Development of the diagnostic test will be similar to that for the lung cancer test. We have entered into an agreement with University of California San Francisco to obtain additional pancreatic cancer specimens and have begun to analyze these specimens.

• *Develop a colon cancer risk of metastasis test.* We have analyzed a series of primary tumors in colon cancer and determined a preliminary gene set predictive of whether the patient tumor has spread beyond the colon into other sites (metastasized). If a colon cancer tumor has spread or invaded other organs or lymph nodes, the treatment may include earlier, more aggressive chemotherapy and not surgery at the time of diagnosis. It is not always possible for the physician to determine whether a cancer has spread before surgery has taken place. Therefore, we are developing a diagnostic test using microarray technology to predict whether the patient's tumor is contained in the colon before surgery. We are in the research phase of development of this test. We have analyzed sixty patient specimens with metastatic and non-metastatic colon cancer and have developed a preliminary gene set predictive of metastatic cancer. We will validate this gene set in a larger group of specimens and proceed with development of the test in the same manner as the lung test.

• *Develop an esophageal cancer risk of recurrence test.* We have analyzed a series of esophageal tumors from patients with long and short survival after esophageal surgery. A preliminary gene set predictive of "high risk" patients was determined using the first 46 patients analyzed. We will use an additional set of specimens to validate this predictive gene set and development of the diagnostic test will be similar to the lung test.

• *Develop a cancers of unknown primary test.* About 5% of patients suffer from cancer without knowing where the tumor originated. For example, the cancer may have invaded both the colon and the lungs. Treatments for lung cancer are quite different from treatments for colon cancer, Therefore, we are planning to develop a diagnostic test using microarray methods for determination of the origin of the cancer. We have collected patient specimens from a series of cancers that have been diagnosed as tumors of unknown origin. These include, gallbladder, pancreas, gastric, kidney, breast, prostate cancer and others. We intend to analyze these specimens using microarray methodology and develop a gene set that will identify the origin of the tumor. We are in the early stages of planning our research analysis of these specimens. Development of a diagnostic test will be similar to the lung cancer test.

We will validate these tests using clinical specimens available from our network of over a dozen clinical investigators. As we proceed from the research phase to the validation phase with respect to these tests, we will need to access additional specimens from larger institutions. We have identified these institutions and are in the process of negotiating the appropriate agreements with them. However, there can be no assurance that we will be able to enter into agreements with these institutions on terms favorable to us, or at all.

Expanding our pharmacogenomic testing services business and creating a standardized and integrated testing platform in the major markets of the healthcare industry outside of the United States.

We have ongoing relationships with several pharmaceutical companies both in the United States and abroad. We currently have contracts with pharmaceutical companies using a "fee for service" model for both discovery and validation of biomarkers using our validated RT-PCR platforms and microarray technologies and hope to continue this line of business in the future. We believe that we are in compliance with FDA's Good Laboratory Practice regulation (GLP), making our data appropriate for submission to the FDA by the pharmaceutical industry. Our experience and reproducible methods, along with our patented/patent pending methods have generated business for us in the "outsourcing" of pharmacogenomic testing for the pharmaceutical industry. The demand from the pharmaceutical industry for our services has steadily increased over the years. Given the industry's increasing focus on personalized medicine and pharmacogenomics, we expect a growth in revenues from these services.

Moreover, as pharmaceutical companies begin to place patients on clinical trials of their drugs in various parts of the world, they will require that patient specimens be analyzed regionally. The requirement will be partially due to the need for rapid turnaround in the testing and partly due to regulatory compliance within the region. For instance, the pharmaceutical industry is increasing its clinical trial enrollment of patients in China, but the Chinese government severely restricts sending biopsy specimens out of China for genetic testing. While we currently expect to expand globally to meet these needs, there can be no assurance that we will achieve such expansion or, if we do expand, that we will maintain our profitability.

Additional Products for Service Provider Business: FISH, IHC and Bioinformatics.

• *FISH analysis.* We have added the analysis of patient specimens by fluorescent in situ hybridization or FISH analysis to detect genes associated with response to drugs associated with known biomarkers, such as HER2 and EGFR. FISH test kits for HER2 and EGFR are commercially available in other labs, but our pharmaceutical clients would rather have RGI perform these additional tests and avoid the risks associated with sending valuable clinical trial specimens to a second lab. FISH tests employ an FDA approved methodology for analysis of DNA levels in a patient sample by binding the fluorescent DNA material in the test kit to the patient section. The amount of fluorescence captured by the patient specimens determines whether the patient's tumor is positive or negative for the gene. A positive test by FISH analysis is required by pharmaceutical companies enrolling patients on therapy with various drugs targeting HER2 or EGFR. An FDA approved test kit is available for analysis of HER2 by FISH. We are using this test. We have set up equipment and provided the laboratory space for Dr. Michael Press to perform these analyses in his CLIA certified laboratory for our clients. We will consider revising our CLIA certification application to include this type of testing service to allow us to conduct these types of tests in our own laboratory.

• *IHC analysis.* We have added the ability to analyze specimens by immunohistochemistry (IHC) for common ancillary tests such as estrogen receptor (ER) and progesterone receptor (PR). These tests, which are used to direct hormone therapy to breast cancer patients, involve binding of antibodies to patient specimens to detect levels of ER and PR by intensity of staining. We are beginning to market these ancillary tests to our pharmaceutical clients as research tests and will consider adding these tests to our CLIA certification application. In the interim, we have set up equipment and provided the laboratory space for Dr. Michael Press to perform these analyses in his CLIA certified laboratory for our clients.

• *Bioinformatics Service for Pharmaceutical Clients.* We produce gene expression data for our pharmaceutical clients using microarray and PCR technologies. We are beginning to offer detailed statistical analysis of the data we produce for our pharmaceutical clients. In the past the pharmaceutical clients received raw data from us and analyzed the results using their own statisticians. However, we have begun to receive requests for statistical analysis of this data using a series of bioinformatics software. We have acquired the necessary software and have successfully processed data for a pharmaceutical client. We are developing a team of statisticians and will market this service.

• *DNA analysis by microarray.* Affymetrix upgraded our instruments to support analysis of DNA by microarray and intend to offer this service to our pharmaceutical clients. We have technologies in place to isolate DNA from FFPE specimens and will validate the use of this DNA on the Affymetrix Instrument. We plan to perform this validation within the next year, so that we may offer this service.

Growth Through Globalization of Our Service Business.

We estimate based on our internal market research and experience to date that the addressable market opportunity for our testing services business in the area of analyzing tumor specimens in the course of clinical trials is between $400 and $500 million per year worldwide.

Demand within the pharmaceutical industry requires us to offer "integrated" service throughout the world for analysis of their clinical trial specimens. It is important to the pharmaceutical industry and the regulatory agencies that the same analytical methods be used for each clinical trial sample around the world so that the data can be easily compared and used for global drug development. Also, export of clinical trial specimens to the United States is restricted from some areas of the world such as China. Finally, the enrollment of patients in clinical trials sometimes depends on analyzing the sample for a specific biomarker within five days, which does not provide sufficient time for shipping specimens to the United States.

The pharmaceutical industry is moving a large percentage of their clinical trials to Asia to access and treat patients that are chemotherapy-naïve (patients who have not had previous chemotherapies), to carry out less expensive clinical trials and to generate "on site" chemotherapy response data to be used in conjunction with drug approval in these areas. The goal of our globalization plan is to offer a worldwide analysis of patient specimens and generate consistent data based on integrated common platforms and technology.

• *Europe.* We offer our pharmacogenomic testing at a site in Edinburgh, Scotland, which is associated with the University of Edinburgh and Edinburgh Royal Infirmary. We established a subsidiary, Response Genetics, Ltd. in November 2006 through which we manage the work at this site. As of March 2007, we began to lease this laboratory space and have equipped the laboratory to process specimens from specific clinical trials from a large pharmaceutical company. These trials, which involve about 10,000 patients, require us to analyze the patient sample within five days of surgery. It is not possible to ship the specimens to Los Angeles in this time frame, thus necessitating a laboratory on site in Europe. Other pharmaceutical companies have shown interest in processing specimens in Europe through us. The cost of the European lab will be offset by an advance on processing fees from a large pharmaceutical company.

• *China.* We intend to offer our services in China through an arrangement with an established biotech company, Shanghai Biochip Company, Ltd. ("SBC"). This collaboration is necessary, since the Chinese government does not allow shipment of patient specimens outside of China for processing elsewhere. We believe that placement of a laboratory in China is important because several of our pharmaceutical clients have stated that they have clinical trial specimens stored in China that they have not been able to analyze. Additionally, prospective clinical trials are planned in China as part of an effort to get drugs approved in China. We finalized the terms of our arrangement with SBC. In the agreement, we provide technology, training and the laboratory manager and SBC provides the space, equipment and the rest of the staff.

• *Japan and Asia (except China and India).* We offer our services in Japan through an arrangement with Hitachi Chemical Co., Ltd. ("Hitachi"), a leading diagnostics manufacturer in Japan Under this arrangement, Hitachi processes specimens collected throughout Asia, except China and India, and Australia using our technology. Pharmaceutical clients have requested analysis of patient specimens on site in Japan and surrounding countries for prospective clinical trials for the same reasons we are opening the lab in Europe.

We believe that growth in our pharmacogenomic testing services business will be enhanced by our ability to process specimens in various locations throughout the world. To our knowledge, we will be the only company offering this type of service with consistent results at various sites around the world to the industry.

Growth Through Strategic Relationships

• *Co-marketing of our services by Affymetrix.* We are an Affymetrix service provider for analysis of pharmacogenomic information by microarray using the Affymetrix microarray platform. We expect this alliance with Affymetrix to expand our business, since there is an unmet demand from the pharmaceutical industry for analysis of paraffin tissue using microarray technology. Under the contract, Affymetrix will be able to announce us as a "solution" to their pharmaceutical clients for analysis of FFPE tissue and thereby co-market us as service provider to their clients.

Affymetrix has also upgraded our microarray system to allow us to analyze DNA as well as RNA. We are able to generate DNA and RNA from the same microdissected specimens and will now be able to add DNA analysis on the microarray platform as a new service.

• *Collaboration with Roche Molecular Systems, Inc.* Once a predictive biomarker has been found to be associated with response to a particular chemotherapeutic agent, a pharmaceutical company client may wish to develop a companion in vitro diagnostic (IVD) kit, to be available for testing the patient population globally as their drug is approved. Such a test that determines patient responsiveness to their drug could enhance the probability of approval of the new agent with the FDA. In order to provide such a test using higher quality reagents and with global distribution potential, we have formed a collaboration with Roche. Once we have developed effective research-grade reagents for a particular biomarker or series of biomarkers, the pharmaceutical company may contract directly with Roche to generate reagents compliant with FDA standards for development of IVD tests to replace our research reagents for a particular biomarker or series of biomarkers. We will use these high quality reagents comprising the pre-IVD test for positivity of a particular biomarker or series of biomarkers as a requirement to enroll a patient in prospective clinical trials. Data from these trials will be submitted to the FDA for approval of an IVD kit for response simultaneously with the approval of the New Drug Application. Since we are involved in the discovery of the genes involved for response to a particular chemotherapy with the pharmaceutical client, we enjoy royalty free and exclusive rights to analyze the prospective trial specimens for these biomarkers. These include specimens generated from the large phase II and phase III trials to be submitted to the FDA, EMEA and other global regulatory agencies for approval of the drug. The value of this relationship is that we provide for the pharmaceutical industry testing services that produce research-grade assays for development of biomarkers and determination of the appropriate target populations for their therapy, and potentially enhance their opportunity for clinical trial success in enriched patient populations. In this way individualized therapy will be available to patients, and the speed to market of chemotherapy agents targeted to a subset of the population that would not have met the criteria for approval for the entire population will be increased.

Strategic Collaborations

License Agreement with the University of Southern California ("USC")

In April 2000, as amended in June 2002 and April 2005, we entered into a license agreement with USC, pursuant to which USC granted us a worldwide, exclusive license with the right to sublicense, the patents for RGI-1 and related technology, for use in human and veterinary diagnostic laboratory services, the sale of clinical diagnostic products, and the sale of research products to the research community. We are obligated under the agreement to use best efforts to work toward the commercialization of the licensed technology. In consideration for this license, we are obligated to pay royalties to USC, as a percentage of net sales of products or services using the technology, and to meet a certain minimum in royalty payments. Royalty expense for the years ended December 31, 2007 and 2006 was $152,502, and $160,674, respectively. USC retains the right under the agreement to use the technology for research and educational purposes.

Upon authorization from us, USC has the obligation to undertake all responsibilities for the filing, prosecution and maintenance of all patents covered under the license; however, we have agreed to reimburse USC for all associated costs. If we elect not to pursue a particular patent, the rights to that patent revert to USC if USC takes the necessary steps to prosecute and maintain the patent; if USC does not undertake such actions, the exclusive license rights to the patent remain with us. We bear full responsibility for enforcement of patent rights against all claims of infringement by third parties and the right, but not the obligation to bring action against any alleged infringement of the licensed patents by third parties, bearing all costs. USC has the right to pursue any offensive enforcement we chose not to pursue at its own expense and we may agree with USC to pursue such action jointly, sharing all related costs.

This agreement terminates on the first to occur of: (i) the date of the expiration of the last to expire of the patents issued in any country, or (ii) if no patents issue, the date on which any decision or determination to reject or deny the last remaining patent application or claim becomes final. Either party may terminate this agreement for uncured material breach or default upon written notice to the other party. We may terminate the agreement for any reason, upon written notice to USC. USC may terminate the agreement, upon written notice, in the event that we transfer or assign our rights and obligations under the agreement to a third party, in any manner contrary to the terms of the agreement or in derogation of USC's proprietary rights; and immediately if we fail to obtain or maintain insurance coverage and for other specified causes. We are obligated to indemnify USC against all liabilities to third parties, from claims arising in connection with the agreement and our use, sale or other distribution of services and products involving the licensed technology. We also are required to maintain comprehensive general liability insurance, appropriately covering the full scope and range of activities we pursue with the licensed technology.

License Agreement with Roche Molecular Systems, Inc.

In November 2004, we entered into a license agreement with Roche, pursuant to which we are collaborating with Roche to produce commercially viable assays related to the validation of genetic markers for pharmaceutical companies. Specifically, we have licensed the rights to Roche to use the pre-diagnostic assays we develop in the course of using our RNA-extraction technologies to provide testing services to pharmaceutical companies, to produce diagnostic kits that then can be sold commercially to those pharmaceutical companies. Roche is required to pay us royalties of a certain percentage of net sales of the diagnostic kits sold to pharmaceutical companies.

Roche will own the rights to all improvements or modifications solely made by it to the assays or to the technologies we use to develop those assays. Roche has granted us a license to use the optimized assays that form the basis of the diagnostic kits for research purposes. Each party has the exclusive right to prosecute, maintain and defend against infringement, its own patents and applications for patents using counsel of its choice at its expense.

The agreement will continue until the date on which each and every application for patent and claim of our patent rights has expired, been disclaimed, been cancelled, abandoned or terminated, or has been held invalid by a court of law. Either party may terminated the agreement for material breach or for cause, as defined in the agreement, upon prior written notice to the other party. Following the two year anniversary of the effective date of the agreement, either party may terminate the agreement by meeting certain notice obligations and provided that the term will be extended to the point necessary to meet the requirements of any third party pharmaceutical company collaboration transaction then subject to completion.

Patent License Agreement with Roche Molecular Systems, Inc.

In November 2004, we entered into an agreement with Roche pursuant to which we obtained a royalty-bearing, non-exclusive, personal, non-transferable license to use certain licensed technology, including specified nucleic acid amplification processes, to perform certain polymerase chain reaction-based human in vitro clinical laboratory services.

Roche retains all proprietary rights to the licensed technologies and our non-exclusive license is limited to the use of the technology as described above. Under this agreement, neither party is obligated to defend any proprietary rights against third parties for infringement.

In consideration for this license, we are obligated to pay royalties to Roche, as a certain percentage of revenues we receive from performing services using the licensed technology. Royalty expense for the years ended December 31, 2007 and 2006 was $219,721 and $221,861, respectively.

This agreement terminates on the date of expiration of the last to expire of the patents included in the licensed technology. Roche may immediately terminate the agreement upon written notice in the event of any material change in our ownership or control, or in the event that we breach certain non-assignability provisions of the agreement. Roche may also terminate the agreement upon prior written notice in the event of any breach or default by us of a material term under the agreement. The agreement will automatically terminate upon our entry into bankruptcy or similar proceedings.

Services Agreement with Taiho Pharmaceutical Co., Ltd.

In July of 2001, we entered into an agreement with Taiho pursuant to which we will provide Taiho with molecular-based tumor analyses for use in guiding chemotherapy treatment for cancer patients using RGI-1, for use in its business developing and marketing pharmaceutical and diagnostic products for use against cancer. Pursuant to the agreement, we appointed Taiho as the exclusive purchaser in Japan of tests and testing services based upon RGI-1 using gene expression for: (i) any one or the combination of specified molecular markers, (ii) the therapeutic use of specified compounds, or (iii) the diagnosis or therapeutic treatment of specified precancerous and cancerous diseases. We also granted Taiho the right to be a non-exclusive purchaser in Japan of tests and testing services based upon RGI-1 using gene expression, other than those for which Taiho has exclusivity, for: (i) any one or combination of molecular markers, (ii) the therapeutic use of any compound or biological product against cancer, or (iii) the diagnosis or therapeutic treatment of precancerous and cancerous diseases.

We are obligated to notify Taiho of new molecular markers, therapeutic compounds and diseases for which RGI-1 may be useful and to offer Taiho the option of including those within its exclusivity. Taiho must perform all testing services pursuant to our instructions and we retain the right to process some or all of the testing services for Taiho internally, or through any other designated and licensed laboratory; provided that such other laboratory is under an appropriate obligation of confidentiality with respect to this agreement.

In consideration for the testing services provided, Taiho made a fixed amount advanced payment to us and is obligated to pay regular testing fees, covering the specific services performed on a monthly basis. Taiho is obligated to purchase a minimum amount of testing services from us during each calendar quarter. Revenue recognized under this agreement for the years ended December 31, 2007 and 2006 was $2,864,425, and $2,745,125, respectively. We obtained a non-exclusive sublicense from the University of Southern California for Taiho for distribution of the testing services in Japan. We retain all intellectual property rights to our proprietary testing services and materials, other than specimens provided by Taiho, and all related patent applications. Provided that, however, Taiho retains all intellectual property rights to the results of the testing services performed under the agreement.

Taiho has agreed to indemnify us against any damages claims brought by third parties based on the distribution of the testing services; any claims related to false advertising or unfair competition; and any regulatory challenges. We have agreed to indemnify Taiho against claims of intellectual property infringement related to the testing services. Both parties have agreed to indemnify one another against any breaches of warranties or failures to perform obligations under the agreement. We have agreed to maintain comprehensive general liability insurance for the term of the agreement and for a specified period thereafter. Either party has the right to terminate the agreement in the event of an uncured material breach by the other party, upon written notice, or for cause, as defined under the agreement. Since we do not hold a patent for RGI-1 in Japan, we have agreed to negotiate to adjust Taiho's fee obligations in the event that a third party obtains a patent for similar testing services in Japan and offers those services at a competitive rate. In the event that we cannot reach an agreement Taiho has the right to terminate the agreement upon fulfilling certain notice obligations. In addition, should Taiho terminate the agreement for cause, Taiho retains the right to have Dr. Peter Danenberg and/or Kathleen Danenberg,provide the testing services in the same manner as we provide them under the agreement. This agreement with Taiho was renewed for an additional two years and expires on January 1, 2010.

Services Agreement with SmithKline Beecham Corporation (d.b.a. GlaxoSmithKline) ("GSK")

In January 2006, we entered into an agreement with GSK, pursuant to which we provide services in relation to profiling the expression of various genes from a range of human cancers. Under the agreement, we will provide GSK with testing services as described in individual protocols and GSK will pay us for such services based on the pricing schedule established for each particular protocol. GSK is obligated to make minimum annual payments to us under the agreement and also was obligated to make a non-refundable upfront payment to us of $2,000,000, of which $600,000 was recognized as revenue during the year ended December 31, 2006, to be credited against work undertaken pursuant to the agreement. The contract also provides for minimum annual assay testing requirements over a three year period ending January 2009. The minimum amount of revenue to be recognized during the term, which will expire in January 2009, will be $6,500,000. Revenue recognized under this agreement for the year ended December 31, 2006 and December 31, 2007, was $2,374,800 and $2,818,288, respectively. GSK retains the rights to any intellectual property resulting from our performance of the testing activities contemplated under the agreement, and we have agreed to cooperate with and assist GSK with taking any steps necessary for obtaining copyright protection for such intellectual property. We retain all intellectual property rights to our proprietary testing and gene production processes and all related patents.

Both parties have agreed to indemnify one another mutually against any liabilities to third parties arising from a party's negligence or failure to perform activities contemplated under the agreement or as a result of any material breaches of the agreement by a party, or an employee or affiliate of that party. The initial term of the agreement will extend until January 2009, at which point, GSK has the right to extend the agreement for up to two one-year periods. Subsequently, the parties have the option to extend the agreement for one-year renewal periods upon their mutual written consent. GSK has the right to terminate the agreement or any particular study to be performed under the agreement, with or without cause, upon prior written notice to us. Either party may terminate the agreement upon written notice, for uncured material breach or for cause, as defined under the agreement.

Master Laboratory Test Services Agreement with GlaxoSmithKline Biologicals ("GSK Bio")

In December 2006, we entered into an agreement with GSK Bio, the vaccine division of GlaxoSmithKline, pursuant to which we will provide testing services, principally in relation to profiling the expression of various genes from a range of human cancers, primarily through a laboratory we are establishing in Scotland, in part using funding provided by GSK Bio. We will conduct the testing services on tissue specimens provided by GSK Bio pursuant to various statements of work governed by this agreement and GSK Bio will pay us for the testing services based on pricing schedules outlined in part in the agreement and further in each of those statements of work. The agreement required that GSK Bio make an upfront payment of $2,620,000 which we received in December 2006. The agreement further specifies that GSK Bio will pay annual minimum payments in 2007, 2008 and 2009 and that the upfront payment made in December 2006 will be credited against the annual minimum payments in 2007 and 2008. The agreement also provides that any differences between the annual minimum payments made in 2007, 2008 or 2009 and the amounts due to us for testing services performed on specimens submitted by GSK Bio during the years the three years ended December 31, 2009 be credited towards services performed during the year ending December 31, 2010, the final year of the agreement. In December 2007 we amnded our agreement with GSK Bio whereby GSK Bio would make the remaining minimum payments under the agreement in one lump sum. This payment was received in January 2008. The minimum amount of revenue to be recognized during the term of this contract, which will expire in December 2010, is approximately $7,300,000. The timing of the recognition of these amounts is dependent upon when GSK submits the specimens for testing. We did not recognize any revenue from this agreement in 2006. We recognized $938,701 of revenue under this agreement for the year ended December 31, 2007.

GSK Bio retains intellectual property rights to all inventions, improvements and data resulting from the testing services and bears the full expense of patent prosecution and enforcement, trademark prosecution and otherwise securing the intellectual property rights of such inventions, improvements and data. We retain all intellectual property rights related to our testing services, proprietary processes and all associated intellectual property and bear the full responsibility for prosecuting and maintaining our intellectual property rights. We have agreed to joint ownership by us and GSK Bio of any improvements to our intellectual property that occur in the course of our providing the testing services. GSK Bio has the discretion to seek patent protection for the joint intellectual property at its own expense and if it declines to do so, we have the right to seek patent protection at our expense. All intellectual property owned by either party on the date of this agreement remains the exclusive property of the owning party. We and GSK Bio have agreed to mutually indemnify one another against all claims arising based on the agreement.

The agreement continues until December 31, 2010 or until the completion of the recruitment phase of a specific trail of GSK Bio, as contemplated by the agreement. GSK Bio has the right to terminate the agreement at anytime, upon prior written notice to us. Either party may terminate the agreement for uncured material breach, if the other party enters into bankruptcy or similar proceedings, or if the other party is unable to perform its obligations under the agreement for a period of more than three months due to force majeure.

Service Provider Agreement with Affymetrix

In September 2006, we entered into an agreement with Affymetrix, pursuant to which Affymetrix has granted us a non-exclusive, non-transferable, non-sublicensable license to use its GeneChip(R) microarrays to provide our pharmacogenomic testing services to our academic, biotech and other industrial clients. Under this agreement, we work with Affymetrix pursuant to a formal service provider arrangement. Prominent among the features of this arrangement is that each party has the right to use the other party's trademarks and logos in the course of advertising and marketing their own products and services. However, such right may be terminated at the option of either party if the other party's use does not meet the first party's usage policy. Except as expressly agreed to, Affymetrix retains all rights or licenses to any patents or other intellectual property owned or licensable by it. This agreement also greatly expands our right to market and sell the results of our pharmacogenomic testing using Affymetrix's proprietary probe arrays. We pay Affymetrix based on the number of their probe arrays we use on a quarterly basis, pursuant to pricing schedules broken down by the type of client to whom we are providing our services. In addition, our clients also may purchase probe arrays directly from Affymetrix and direct that Affymetrix ship those probe arrays to us, for dedicated use in conducting pharmacogenomic testing services for such clients. During the years ended December 31, 2006 and December 31, 2007, we paid $375,522 and $379,702, respectively, to Affymetrix under this agreement.

We have agreed to grant Affymetrix a non-exclusive, worldwide, fully sublicensable, fully paid-up, royalty-free, irrevocable, perpetual license to all product improvements that result from our use of the probe arrays. We have the right to request that Affymetrix design and manufacture, under terms of strict confidentiality, custom probe arrays or custom nucleic acid probe panels for specific sets of nucleic acid target sequences. We agree to indemnify Affymetrix for all liabilities to third-parties arising from or relating to such target sequences or their use.

This agreement has an initial term of one year, with the option for renewal for an additional one-year term upon mutual agreement of the parties. Affymetrix has the right to terminate the agreement for cause, upon 30 days written notice, (i) if it receives two or more substantial client complaints in a one-year period regarding the services we are providing to our clients, (ii) if it determines that we have failed to maintain a high level of service, or (iii) if it determines that we have failed to successfully meet the requirements of any reasonable technical or scientific audits administered by Affymetrix.

Arrangement with Applied Biosystems

In December 2005, we entered into an arrangement with Applied Biosystems pursuant to which we will purchase from them certain RT-PCR assay kits and associated primers and probes for use in our pharmacogenomic tests. Using its proprietary technology, Applied Biosystems designs and manufactures a variety of products for use in various genetic and related analytic assays. Under this arrangement, we purchase assay kits built around standard oligonucleotide sequences (short fragments of DNA) and we can request that Applied Biosystems produce kits containing custom oligonucleotide sequences for us. Specifically, we have been purchasing the Taqman assay kit, one of the primary tools used in our pharmacogenomic tests from Applied Biosystems. We pay for the kits per-order, based on pricing terms published and updated regularly by Applied Biosystems. Payments are due 30 days from the date of the invoice but the term of payment may be extended on credit. Applied Biosystems retains the right at all times to change any payment and credit arrangements and, if it determines we have become uncreditworthy, to refuse payment on credit and to assess late payment charges for any outstanding amounts. This agreement is terminable at will by either party. During the years ended December 31, 2006 and 2007, we paid $352,805 and $385,835, respectively, to applied Biosystems under this agreement.

Applied Biosystems' terms of sale provide that Applied Biosystems will indemnify us from and against any infringement damages finally awarded based on claims by third parties that the manufacture or sale of the purchase infringe patent or other intellectual property rights of such third parties. With regard to alleged infringement claims, Applied Biosystems has the option either to procure for us the right to continue using the product; or to replace or modify the product so that it becomes non-infringing; or to require us to return the product and refund the price actually paid, less a reasonable amount for any use, damage or obsolescence; or to substitute another suitable non-infringing product for the infringing product.

Applied Biosystems retains the rights to any inventions, discoveries, improvements, and other intellectual property that are conceived, developed, reduced to practice, or generated by Applied Biosystems or jointly with us that relate to the design or manufacture of assay kits and associated primers and probes. Applied Biosystems agrees to maintain the confidentiality of any confidential information we disclose to them for a period of seven years following disclosure.

Agreement with Shanghai BioChip

In March 2007, we entered into a collaboration agreement with Shanghai BioChip Company, Ltd. ("SBC") pursuant to which SBC will provide pharmacogenomic testing services in China using our RGI-1 extraction technology. Under this agreement, we work with SBC pursuant to a formal statement of work ("SOW") arrangement. This agreement greatly expands our ability to provide our services globally, particularly in China. Specifically, this agreement allows us to collaborate with some of our current clients in the pharmaceutical industry as we can now process specimens collected during clinical trials that are based in China. Additionally, this agreement allows us to offer our services to companies within China.

Pursuant to the agreement, we have granted SBC an exclusive license in China to provide services in China using our proprietary RGI-1 RNA extraction technology. Subject to consent from the University of Southern California, we will grant SBC an exclusive sublicense to patents licensed from the University of Southern California for distribution of testing services in China. In turn, SBC will perform RNA extraction from FFPE tissue specimens exclusively for us during the term of the agreement. SBC must perform all testing services pursuant to our instructions and we retain the right to generate and report all final results. All proposed contracts from SBC using our testing services must be explicitly approved in writing by us. We have also retained the rights to any intellectual property which result from the performance of this collaboration agreement.

Outside of certain shared costs, as specified in the agreement, we and SBC each are individually and separately responsible for our own costs. Specifically, we are responsible for costs related to royalty payments to third parties under existing licensing agreements, license fees for our intellectual property and the salary of the General Manager of the facility, costs associated with the analysis of raw data from test results, costs associated with generating final reports to customers, costs of responding to customer inquiries regarding the results of analysis the data and the report of test results, and costs associated with providing training and assistance with laboratory setup.

SBC is responsible for expenses related to the initial cost of laboratory equipment, as well as the cost of any additional equipment necessary as a result of increases in volume of business; maintenance or service fees and expenses for the existing testing equipment; the cost of reagents; the cost of qualified laboratory space, including any rent for such space; expenses and salaries associated with laboratory personnel, including the Vice-General Manager and necessary FTE personnel to perform collaboration services; the costs of responding to customer inquiries regarding the performance of the testing, storage of the samples and other record keeping; and the costs associated with training and commencement of operations.

Our agreement with SBC has an initial term of five years, with an automatic renewal for an additional three-year term unless either party gives 90 days notice in advance of the renewal date of its intent not to renew. We may terminate the agreement on the occurrence of: (i) errors in SBC's processing of samples that exceeds levels in our other facilities; (ii) the inability to achieve laboratory qualifications within 12 months; (iii) the failure to adequately address quality concerns raised by two or more customers; and (iv) refusal by SBC to agree on a reasonable request for a SOW. Either party may terminate this agreement for uncured material breach, insolvency or bankruptcy, or substantial use of the name of the other party without consent.

Agreement with Hitachi Chemical Co., Ltd.

On July 26, 2007, we entered into a collaboration agreement with Hitachi Chemical Co., Ltd. ("Hitachi"), a leading diagnostics manufacturer in Japan (the "Hitachi Agreement"). Under the terms of this agreement, Hitachi will begin using our proprietary and patented techniques to extract genetic information from formalin-fixed paraffin-embedded (FFPE) tissue samples collected in Southeast Asia, Australia and New Zealand. As part of this collaboration agreement, we will provide Hitachi with the technical information and assistance necessary to perform the testing services. Hitachi also plans to introduce us to potential new testing services customers in the region to expand the testing of FFPE clinical samples in Asia. The Southeast Asian countries covered under this agreement include Japan, North Korea, South Korea, Taiwan, Mongolia, Pakistan, Bangladesh, Sri Lanka, Nepal, Singapore, Malaysia, Indonesia, Brunei, Thailand, Myanmar, Laos, Cambodia, Vietnam and the Philippines (the "Territory").

Our agreement with Hitachi has an initial term of three years, expiring on March 31, 2010, with an automatic renewal for one year at the end of the original period under the same terms and conditions. Pursuant to the agreement, Hitachi will receive a percentage of the revenue, as provided in the agreement, collected from our clients in the Territory, for its testing services performed.

Hitachi is responsible for expenses related to the cost of laboratory equipment and modification to the laboratory facilities, as well as the cost of reagents. We are responsible for costs related to additional laboratory equipment which shall be provided to Hitachi according to a separate equipment lease agreement which is not currently in effect.

Intellectual Property

We rely on a combination of patents, trade secret, copyright and trademark laws, license agreements, nondisclosure and other contractual provisions and technical measures to protect our intellectual property rights in our products, technology and processes. We have proprietary rights in four areas.

First, we exclusively license from USC the use of the RGI-1 extraction method, which has been patented in the United States. Currently, this exclusive license includes four United States patents related to this technology. We use this patented method when processing specimens, particularly isolating RNA from FFPE tissue, as part of our contractual obligations with various clients, including Taiho and Roche. We also have proprietary rights in additional variations on the RGI-1 extraction technology, for which patent applications are pending in the United States and abroad. We also use or intend to use these proprietary methods when meeting our contractual obligations with various clients and when developing diagnostic tests for cancer. We intend to protect these proprietary technologies, including our RGI-2 extraction method, by filing patent applications in the United States and abroad.

Next, we have identified and are in the process of identifying tumor response markers, which provide an indication of an anti-cancer drug's effectiveness or ineffectiveness based upon the level of such determinant in a particular tumor. We intend to protect these proprietary developments to the extent allowable under current law. We have patented and have patent applications pending related to certain tumor response markers in the United States and abroad. For example, we have patented methods of quantifying expression of response markers from tumor tissue, which provide guidance in determining appropriate chemotherapeutic regimens for patients that are candidates for treatment with particular chemotherapies. Currently, we have eleven United States patents that relate to certain tumor markers. Such markers include thymidylate synthase (TS), dihydropyrimidine dehydrogenase (DPD), excision repair gene CC1 (ERCC1), glutathione-s transferase pi (GST-π), epidermal growth factor receptor (EGFR) and HER2/neu gene. We use some of these patented methods as part of our contractual obligations with various clients. Additionally, we are in the process of licensing the use of our HER2/neu method to clients.

Additionally, we have proprietary rights in our database, in which we have compiled the results of our analysis of archived paraffin-embedded tissue specimens, clinical trials, and recently received patient tissue specimens in establishing response determinants for anti-cancer drugs, and in which we are continuing to compile data. We have protected and will continue to protect this database as a trade secret.

Finally, we have proprietary rights and know-how in the factors which allow us to standardize the quantitative gene expression levels used in our database, and the computation of such values from the readings provided by the laboratory equipment used in the analysis of the mRNA extracted from a patient's tumor, using our proprietary conversion factors.

We have and will continue to pursue the registration of our trademarks in the United States and internationally. Response Genetics, RGIonline.com, Danenberg Tumor Profile, Man in Circle Design, and DTP are registered trademarks in the United States. We intend to protect additional marks by filing trademark applications in the United States and abroad. We currently hold the domain names www.responsegenetics.com and www.responsedx.com.

We intend to broaden the scope of our intellectual property and consider our technologies and proprietary know-how to be critical to our future success.

Regulation

CLIA

The Clinical Laboratory Improvement Amendments of 1988, or CLIA, provide for the regulation of clinical laboratories by the United States Department of Health and Human Services (DHHS). This law requires the certification of clinical laboratories that perform tests for the purpose of diagnosing, preventing or treating any disease or condition affecting humans and imposes specific conditions for certification. CLIA is intended to ensure the accuracy, reliability and timeliness of patient test results performed in clinical laboratories in the United States by mandating specific standards in the areas of personnel qualification, administration participation in proficiency testing, patient test management, quality control, quality assurance and inspections. CLIA regulations also contain guidelines for the qualification, responsibilities, training, working conditions and oversight of clinical laboratory employees. In addition, specific standards are imposed for each type of test that is performed in a laboratory. The categorization of commercially marketed in vitro diagnostic tests under CLIA is the responsibility of the FDA. The FDA will assign commercially marketed test systems into one of three CLIA regulatory categories based on their potential risk to public health. Tests will be designated as waived, of moderate complexity or of high complexity. CLIA and the regulations promulgated thereunder are enforced through quality inspections of test methods, equipment, instrumentation, materials and supplies on a periodic basis.

We are subject to governmental regulation at the federal, state, and local levels as a clinical laboratory. We are subject to DHHS regulations, which mandate that all clinical laboratories be certified to perform testing on human specimens and provide specific conditions for certification. CLIA and related regulations thereunder are enforced through survey and inspections every two years. Moreover, CLIA inspectors may make random inspections of our laboratory. We are CLIA registered and any change in CLIA or regulations thereunder or in the interpretation thereof could have a material adverse effect on our business.

Other Laboratory Regulations

CLIA does not preempt state laws that are more stringent than federal law. Since March 26, 2007, we have been a licensed clinical laboratory in California. This license is valid until March 14, 2009. We have submitted the necessary paperwork to extend our license for another year. California laws establish standards for day-to-day operation of our clinical 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 residing in those states. We are in the process of submitting our applications in several states, including Florida, New York and Pennsylvania. We may elect to provide tests in other states that have similar requirements and other states may adopt similar requirements in the future. Finally, we may be subject to regulation in foreign jurisdictions if we seek to expand offering our tests or distribution of our tests internationally.

If we lose our California license, we would not be able to sell tests for prospective clinical trials which would limit our revenues and harm our business. If we were unable to obtain or lost necessary licenses in other states, we would not be able to test specimens from those states.

HIPAA Compliance and Privacy Protection

The Health Insurance Portability and Accountability Act of 1996 (HIPAA) established comprehensive federal protection for the privacy and security of health information. The HIPAA standards apply to three types of organizations: health plans, health care clearing houses, and health care providers who conduct certain health care transactions electronically, or "Covered Entities." Covered Entities must have in place administrative, physical and technical standards to guard against the misuse of individually identifiable health information. Additionally, some state laws impose privacy protections more stringent than HIPAA's. There are also international privacy laws, such as the European Data Directive, that impose restrictions on the access, use, and disclosure of health information. All of these laws may impact our business. As of December 31, 2007, we were not a Covered Entity subject to HIPPA privacy and security standards. Subsequent to this filing, however, we expect to become a Covered Entity as we anticipate that our testing services will become reimburseable by insurance payors prompting us to conduct covered healthcare transactions electronically. We are in the process of forming an active program designed to address HIPAA regulatory compliance. Regardless of our own Covered Entity status, HIPPA presently applies to many of the facilities and physicians from which we obtain tissue specimens and associated clinical information. In addition to the federal privacy regulations, our activities must also comply with other applicable state laws regarding privacy and confidentiality of health information that are applicable to clinical laboratories. We believe we have taken the steps required for us to comply with health information privacy and confidentiality statutes and regulations under both federal and applicable state jurisdictions. However, we may not be able to maintain compliance in all jurisdictions where we do business. Our failure to comply with these privacy laws or significant changes in the laws restricting our ability to obtain tissue specimens and associated patient information could significantly impact our business and our future business plans.

FDA

The type of regulation to which our products will be subject will depend in large part on how we or our partners intend to commercialize them. Products that will be commercialized as *in vitro* diagnostic kits will be subject to review by the FDA and must be cleared or approved before they can be marketed. Tests that are available as clinical laboratory services have historically not been subject to regulation by the FDA but will be subject to other requirements and may become subject to FDA regulation.

The FDA regulates the sale or distribution of medical devices, including *in vitro* diagnostic test kits. The information that must be submitted to the FDA in order to obtain clearance or approval to market a new medical device varies depending on how the medical device is classified by the FDA. Medical devices are classified into one of three classes on the basis of the controls deemed by the FDA to be necessary to reasonably ensure their safety and effectiveness. Class I devices are subject to general controls, including labeling, pre-market notification and adherence to the FDA's quality system regulation, which are good manufacturing practice regulations for medical devices. Class II devices are subject to general controls and special controls, including performance standards and post-market surveillance. Class III devices are subject to most of the previously identified requirements as well as to pre-market approval. Most *in vitro* diagnostic kits are regulated as Class I or II devices and are either exempt from pre-market notification or require a 510(k) submission.

510(k) Pre-Market Notification

A 510(k) notification requires the sponsor to demonstrate that a medical device is substantially equivalent to another marketed device that is legally marketed in the United States and for which a pre-market approval, or PMA, was not required. It does not generally require supporting clinical data, but a 510(k) for a diagnostic device will need to contain, at a minimum, performance data. A device is substantially equivalent to a predicate device if it has the same intended use and technological characteristics as the predicate or has the same intended use but different technological characteristics, where the information submitted to the FDA does not raise new questions of safety and effectiveness and demonstrates that the device is at least as safe and effective as the legally marketed device.

The FDA's goal is to review a 510(k) application in 90 days from the date of receipt of the submission. However, in practice, clearance may take longer. The FDA may require information regarding clinical data in order to make a decision regarding the claims of substantial equivalence. If the FDA does not believe the device is substantially equivalent to a predicate device, it will issue a "Not Substantially Equivalent," or NSE, decision and designate the device as Class III, which will require approval of a PMA application before the device may be marketed. Alternatively, depending on the nature of the device, the recipient of an NSE decision may petition the FDA to make a risk-based determination of the new device and reclassify the new device in Class I or II. This process is referred to as the de novo process. If the FDA agrees with the petition, the new device will be reassigned to the appropriate lower Class. If it does not agree, the sponsor will have to submit a PMA.

Pre-Market Approval

The PMA process consists of a scientific and regulatory review to evaluate the safety and effectiveness of Class III medical devices. The PMA process is considerably more time consuming and expensive than the 510(k) route, and the application must be supported by scientific evidence, including clinical data, to demonstrate the safety and efficacy of the medical device for its intended purpose.

The FDA's goal is to review a PMA in 180 days, although in practice this review time is longer. Questions from the FDA, requests for additional data and referrals to advisory committees may delay the process considerably. Indeed, the total process may take several years and there is no guarantee the PMA will ever be approved, or if approved, the FDA may limit the market to which the device may be marketed. The FDA may also request additional clinical data as a condition of approval or after the PMA is approved. Any changes to the medical device may require a PMA supplement to be submitted and approved.

Laboratory Developed Tests

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

The first version of the Draft Guidance and related discussions about IVDMIAs have attracted the attention of the U.S. Congress and in March 2007, the Laboratory Test Improvement Act was introduced in the U.S. Senate. The bill, if enacted into law, would mandate that all providers of laboratory-developed tests provide evidence to the FDA that verifies the analytical validity of such tests. It would also require the development of a mechanism for the enhanced reimbursement of cleared and approved *in vitro* diagnostic products and laboratory-developed tests. The bill was referred to committee and no further action has been taken as of the date of this prospectus.

Federal and State self-referral Laws

Our relationships with surgeons, hospitals and other providers are subject to scrutiny under various federal anti-kickback, self-referral, false claims and simil laws, often referred to collectively as healthcare fraud and abuse laws. Healthcare fraud and abuse laws are complex, and even minor, inadvertent violations can give rise to claims that the relevant law has been violated. Possible sanctions for violation of these fraud and abuse laws include monetary fines, civil and criminal penalties, exclusion from federal and state healthcare programs, including Medicare and Medicaid, and forfeiture of amounts collected in violation of such prohibitions. Certain states in which we intend to market our products have similar fraud and abuse laws, imposing substantial penalties for violations. Any government investigation or a finding of a violation of these laws would likely result in a material adverse effect on the market price of our common stock, as wel as our business, financial condition and results of operations.

Anti-kickback laws and regulations prohibit any knowing and willful offer, payment, solicitation or receipt of any form of remuneration in return for the referral of an individual or the ordering or recommending the use of a product or service for which payment may be made by Medicare, Medicaid or other government-sponsored healthcare programs. We have structured our physician relationships with the intention of complying with all applicable laws, including the federal ban on physician self-referrals, commonly known as the "Stark Law," state anti-referral laws and other applicable anti-kickback laws. it is possible that regulatory or enforcement agencies or courts may in the future view these relationships as prohibited arrangements that must be restructured or for which we would be subject to other significant civil or criminal penalties, or prohibit us from accepting referrals from these physicians. This could harm our reputation and the reputations of our physician collaborators. In addition, the cost of non-compliance with these laws could be substantial since we could be subject to monetary fines, civil or criminal penalties and we could also be excluded from federally-funded healthcare programs, including Medicare and Medicaid, for non-compliance.

The scope and enforcement of all of these laws is uncertain and subject to rapid change. There can be no assurance that federal or state regulatory or enforcement authorities will not investigate or challenge our current or future activities under these laws. Any investigation or challenge could have a material adverse effect on our business, financial condition and results of operations. Any state or federal regulatory or enforcement review of us, regardless of the outcome, would be costly and time consuming. Additionally, we cannot predict the impact of any changes in these laws, whether these changes are retroactive or will have effect on a going-forward basis only.

Corporate Practice of Medicine

California law prohibits business corporations from practicing medicine and from employing or engaging physicians to practice medicine on their behalf. This prohibition, commonly referred to as a prohibition against the corporate practice of medicine, is intended to prevent interference in the medical decision-making process by non-physicians. Violations of this prohibition may result in civil or criminal fines, as well as sanctions imposed against us or the physician, or both, through licensing proceedings. We believe that we have structured our relationships with physicians in such a way that is permissible under California law and that does not violate corporate practice prohibitions. However, there can be no guarantee that regulators will find our arrangements suitable.

Good Laboratory Practice (GLP)

We are subject to various regulatory requirements designed to ensure the quality and integrity of our testing processes. Our standard operating procedures are written in accordance with applicable regulations and guidelines for operating in the United States. The industry standards for conducting preclinical laboratory testing are embodied in Good Laboratory Practice regulations, or GLP, regulations promulgated by the FDA. In the United States, non-clinical studies intended for FDA submission must be conducted in accordance with GLP; foreign governments may require our North American clients to comply with certain regulatory requirements of other countries (in order to gain approval within these countries), such as regulations promulgated by the Japanese Ministry of Health, Labor and Welfare and Ministry of Agriculture, Forestry and Fisheries, and in Europe, the Organisation for Economic Co-operation and Development. GLP regulations specify requirements for facilities, equipment, and professional staff and standardized procedures for conducting studies, including procedures for recording and reporting data and for managing study materials and records. In addition, we have established a required quality assurance program that monitors ongoing compliance with GLP regulations by auditing test data and reporting and conducting inspections of testing procedures.

Our business is also subject to regulation under state and federal laws regarding environmental protection and hazardous substances control, such as the Federal Occupational Safety and Health Act, the Environmental Protection Act, and Toxic Substances Control Act. These regulations, among other things, require work practice controls, protective clothing and equipment, training and other measures designed to minimize exposure to chemicals and transmission of pathogens. We believe that we are in compliance with these and other applicable laws and that the costs of our ongoing compliance will not have a material adverse effect on our business. However, statutes and regulations applicable to our business may be adopted which impose substantial costs to assure compliance or otherwise materially adversely affect our operations.

Reimbursement and Coverage

Revenues for clinical laboratory testing services come from a variety of sources and depend significantly on the availability of third-party reimbursement, including from Medicare and Medicaid programs, commercial insurers and managed care organizations. We are in the process of becoming a Medicare laboratory services provider and intend to become a Medicaid laboratory services provider. We anticipate that third-party payors may provide reimbursement for our testing services. However, we believe that the majority of our payors will pay for our testing services at varying levels that may differ from our list prices. Obtaining reimbursement from third-party payors will be both time consuming and expensive. Payment from third-payors may not be sufficient to allow us to sell our services on a profitable and competitive basis.

A significant percentage of our revenues from the sales of ResponseDX testing services will be derived from the Medicare program. Therefore, the reimbursement rules are important to our operations. Once Medicare has determined that it will cover a particular test, that is provided it as a benefit, payment is generally made under the Clinical laboratory Fee Schedule with amounts assigned to specific procedure billing codes. Each Medicare carrier jurisdiction has a fee schedule that establishes the price for each specific laboratory billing code. As a Medicare-participating laboratoy based in California, we will bill the Medicare program's California contractors and will have to comply with this contractor's coverage and payment policies.

Manufacturing

We currently intend to rely on contract manufacturers or collaborative partners to produce materials necessary for our research and development efforts and to produce our diagnostic tests. We plan to continue to rely on these manufacturers and collaboration partners to manufacture these materials if any of our diagnostic tests is approved for marketing by the FDA or any foreign regulatory authority. We do not have manufacturing experience. We may not be able to identify or enter into satisfactory agreements with collaborative partners.

Information Technology

We have implemented an internally developed database system that is used to perform tracking, evaluation, and reporting of laboratory specimens as they are analyzed. The database system is maintained using application software consisting of a multi-tier MS SQL Server application using Thin Crystal reports for data reporting. Analysis results are imported from TaqMan(R) PCR instruments. The application platform consists of a Windows 2000 server on the back end, with Windows XP Professional workstations as clients operating within the corporate Local Area Network ("LAN"). We also make use of commercial software applications that allow biostatistical analysis of data generated from chip array studies. These systems will be used in the facilities developed overseas by us to ensure that results from sample processing are consistent from location to location.

Pursuant to a services agreement with Jubilant Biosys Ltd. ("Jubilant"), we have purchased software that allows us to integrate all of our laboratory database systems. Additionally, this software enables us to have a unified database system in all of our locations, particularly those located overseas, and to provide worldwide bioinformatics services. This unified database system replaced the previous RGI laboratory database systems.

We employ a LAN configured as a switched Ethernet network over the TCP/IP protocol supporting the responsegenetics.com domain. This LAN hosts the basic business functions for us including office applications, electronic mail, general ledger/accounting software, internet connectivity etc. A similar configuration will be established in our new facilities as needed to support business efficiency.

Specimen storage equipment consists of lockable cabinets that are catalogued for the storage of paraffin-embedded specimens for our clients. Our database provides locator information in order to retrieve these archived specimens as needed. In addition, we maintain freezers to store frozen tissue specimens. These freezers are monitored via computerized probes on a continuous basis to ensure that temperatures are maintained at levels necessary to keep these specimens frozen. Should temperatures in any of the freezers move out of range due to mechanical failure an emergency alert is sent to us for response. These freezers are also supported by a freestanding emergency backup generator that will engage in the event of a general power outage to in order to maintain freezer temperatures at necessary levels. As we expand globally, similar storage systems will be developed at our facilities as necessary to safeguard tissue specimens.

Competition

We provide services in a segment of the healthcare industry that is highly fragmented and extremely competitive. Any failure to respond to technological advances and emerging industry standards could impair our ability to attract and retain clients. This industry is characterized by rapid technological change. Our actual and potential competitors in the United States and abroad may include major pharmaceutical, biotechnology, genomic and diagnostic companies such as Genomic Health, Inc., and Clinical Data, Inc., large clinical laboratories, such as Quest Diagnostics, Inc., universities and other research institutions. Many of our potential competitors have considerably greater financial, technical, marketing, research and other resources than we do, which may allow these competitors to discover important information and technology before we do. It is anticipated that competition will continue to increase due to such factors as the perceived potential for commercial applications of biotechnology and the continued availability of investment capital and government funding for cancer-related research. Our competitors may succeed in developing diagnostic products that circumvent our technologies or product candidates. Also, our competitors may succeed in developing technologies or products that are more effective than those that will be developed by us or that would render our technology or product candidates less competitive or obsolete.

In addition, we are developing our services and product candidates to impact certain methods for treating cancer. If those methods change, it is likely that the demand for our services and product candidates would significantly decline or cease altogether. The development of new or superior competing technologies or products, or a change in the methodology of treating cancer, could affect our competitive position and harm our business. Moreover, these competitors may offer broader product lines and have greater name recognition than us and may offer discounts as a competitive tactic.

Additionally, several development-stage companies are currently making or developing product candidates that compete with or will compete with our potential products. Competitors may succeed in developing, obtaining approval from the FDA or marketing technologies or products that are more effective or commercially attractive than our potential products or that render our technologies and current or potential products obsolete. Competitors may also develop proprietary positions that may prevent us from commercializing product candidates.

Employees

As of December 31, 2007, we had 43 full-time and part-time employees. We employ 27 full-time and six part-time employees. Our wholly-owned subsidiary, Response Genetics, Ltd. employs 10 full time employees. Our employees are not represented by any collective bargaining organizations and we consider our relations with our employees to be good.

Reports to Security Holders

We are a Delaware corporation with our principal executive offices located at 1640 Marengo Street, 6th Floor, Los Angeles, CA 90033. Our telephone number is (323) 224-3900 and our web site address is www.responsegenetics.com. We make available free of charge through the Investor Relations section of our web site our quarterly reports on Form 10-QSB, our Annual Report on Form 10-KSB, and all amendments to those reports as soon as reasonably practicable after such material is electronically file with or furnished to the Securities and Exchange Commission.

Item 2. Description of Property

Our corporate headquarters are located at 1640 Marengo St., Los Angeles, California, 90033. We sublease 11,271 square feet of space, adjacent to the University of Southern California, where we perform research and development and administrative functions. Our current lease expires on January 31, 2010. We believe that our facility is sufficient for our U.S. operations in the near term. We also sub-lease 180 square feet of space at 103 South Carroll Street, Suite 2b, Frederick, Maryland 21701, for administrative purposes. Our current lease expires on August 31, 2008.

Our subsidiary, Response Genetics Ltd., maintains its headquarters at Chancellor's Building, Royal Infirmary of Edinburgh, 49 Little France Crescent, Edinburgh Scotland EH16 5JB. We lease 490 square meters of space (approximately 5,275 square feet of space), where we perform administrative functions and laboratory functions. Our current lease expires on March 31, 2010. We believe that our facility is sufficient for our European operations in the near term.

Item 3. Legal Proceedings.

We are not a party to any legal proceedings.

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

None.

Part II

Item 5. Market for Common Equity and Related Stockholder Matters and Small Business Issuer Purchases of Equity Securities.

Our Common Stock is traded on the NASDAQ Capital Market under the symbol "RGDX" and has been trading since our initial public offering on June 4, 2007. The following table sets forth the range of high and low sales prices of our Common Stock, based on the closing price of our Common Stock on a given day, in each quarter since our Common Stock began trading.

	2007			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Stock price - High	n/a	$ 7.14	$ 6.95	$ 5.22
Stock price - Low	n/a	$ 6.95	$ 3.26	$ 2.99

Recent sales of Unregistered Securities; Use of Proceeds from Registerd Securities

On June 8, 2007 we completed our initial public offering of 3,000,000 shares of our common stock at $7.00 per share. Net proceeds from the initial public offering after deducting underwriting commissions and fees but before expenses were $18,950,000. On closing of our initial public offering all of our outstanding shares of our preferred stock, including accrued but unpaid dividends, automatically converted into 4,360,467 shares of our common stock and all of our outstanding notes payable, including accrued but unpaid interest, automatically converted into 152,489 shares of our common stock. Both of these conversions were based on the initial public offering price of $7.00.

We expect to use the proceeds from our initial public offering for research and development, business expansion, and working capital and other general purposes. Pending such use, the net proceeds from the offering have been invested in interest-bearing money market accounts. None of the net proceeds from the offering were paid directly or indirectly to any of our directors or officers (or their associates) or persons owning 10% or more of any class of our equity securities or to any other affiliate, other than in the form of wages or salaries, fees and bonuses paid out in the ordinary course of business. We will retain broad discretion over the use of the net proceeds received from our initial public offering. The timing and amount of our actual expenditures may vary significantly depending on a number of factors, including the successful early clinical development of our lead product candidates, cash flows from operations and the anticipated growth of our business. We have incurred the following costs as they relate to our use of proceeds including research and development costs of $1,217,829, business expansion costs primarily related to the set up and operation of our European lab of $2,698,927,and $298,974 of cost to establish investor relations and public relations activities necessary for a public company.

There were no additional sales of unregistered equity securities by the Company in the period covered by this annual report.

Purchases of Equity Securities

The Company made no purchases of its equity securities in the period covered by this annual report.

Item 6. Management's Discussion and Analysis

Selected Financial Data

The following selected consolidated statement of operations data for the years ended December 31, 2007 and 2006 and the balance sheet data at December 31, 2007 and 2006 have been derived from our audited consolidated financial statements, which are included elsewhere in this report. Historical results are not necessarily indicative of the results of operations for future periods. The following data is qualified in its entirety by and should be read in conjunction with the rest of the information contained in this section and our consolidated financial statements and related notes included elsewhere in this report.

Consolidated Statement of Operations Data:

	Year ended December 31, 2007	Year ended December 31, 2006
Revenue	$ 7,789,789	$ 6,017,025
Operating Expenses:		
Cost of revenue	$ 4,045,715	$ 2,456,071
General and administrative	$ 6,786,890	$ 3,933,660
Research and development	$ 2,455,044	$ 1,261,981
Operating (loss)	$ (5,497,860)	$ (1,634,687)
Net (loss)	$ (5,052,907)	$ (1,357,643)
Net (loss) per common share:		
Basic	$ (0.78)	$ (0.84)
Diluted	$ (0.78)	$ (0.84)
Weighted average common shares outstanding:		
Basic	6,987,092	2,726,320
Diluted	6,987,092	2,726,320

Consolidated Balance Sheet data:

The following table presents balance sheet data as of December 31, 2007 and 2006 and includes:

- the conversion of all of our outstanding shares of preferred stock, including accrued but unpaid dividends, into 4,360,467 shares of our common stock upon closing of our initial public offering price of $7.00 per share which occurred on June 8, 2007; and

- the conversion of all of our outstanding notes payable, including accrued but unpaid interest, into 152,488 shares of our common stock upon closing of our initial public offering price of $7.00 per share which occurred on June 8, 2007; and.

- the sale of 3,000,000 shares of our common stock upon closing of our initial public offering price of $7.00 per share which occurred on June 8, 2007; and

- reflects a 0.8-for-1 reverse stock split of the outstanding shares of common stock effected upon closing of our initial public offering price of $7.00 per share which occurred on June 8, 2007.

	December 31, 2007	December 31, 2006
Consolidated Balance Sheet Data:		
Cash and cash equivalents	$ 17,024,209	$ 4,930,123
Total assets	$ 24,414,033	$ 8,259,681
Notes payable to stockholders, including accrued interest	$ -	$ 1,045,890
Accrued dividends on preferred stock	$ -	$ 6,097,579
Convertible preferred stock	$ -	$ 15,380
Total stockholders' (deficit) equity	$ 15,105,775	$ (5,502,368)

Managements Discussions and Analysis

Special Note Regarding Forward Looking Statements

Certain statements in this report constitute "forward-looking statements." These forward-looking statements involve known or unknown risks, uncertainties and other factors that may cause the actual results, performance, or achievements of Response Genetics, Inc. to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Specifically, the actions of competitors and customers and our ability to execute our business plan, and our ability to increase revenues is dependent upon our ability to continue to expand our current business and to expand into new markets, general economic conditions, and other factors. You can identify forward-looking statements by terminology such as "may," "will," "should," "expects," "intends," "plans," "anticipates," "believes," "estimates," "predicts," "potential," "continues," or the negative of these terms or other comparable terminology. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. We undertake no obligations to publicly update or review any forward-looking statements, whether as a result of new information, future developments or otherwise.

The following discussion of our financial condition and results of operation should be read in conjunction with our audited financial statements and related notes to the financial statements included elsewhere in this Annual Report on Form 10-KSB as of December 31, 2007 and 2006 and our audited financial statements for the year ended December 31, 2005 included in our registration statement on Form SB-2 previously filed with the SEC. This discussion contains forward-looking statements that relate to future events or our future financial performance. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward looking statements.

Overview

Our goal is to provide cancer patients and their physicians with a means to make informed, individualized treatment decisions based on genetic analysis of tumor tissues. Our pharmacogenomic analysis of clinical trial specimens for the pharmaceutical industry may provide data that will lead to a better understanding of the molecular basis for response to specific drugs and, therefore lead to individualized treatment. We are focusing our efforts in the following areas:

- Launching our ResponseDX tests;
- Developing diagnostic tests for assessing the risk of cancer recurrence, prediction of chemotherapy response and tumor classification in cancer patients;
- Expanding our pharmacogenomic testing services business and creating a standardized and integrated testing platform into the major markets of the healthcare industry including outside of the United States; and

We anticipate that, over the next 12 months, a substantial portion of our capital resources and efforts will be focused on research and development to bring to market a series of diagnostic tests for cancer patients, to establish a pharmacogenomics database that is of commercial value, to establish laboratories overseas in collaboration with certain of our current pharmaceutical clients and for other general corporate purposes.

Research and development expenses represented 16.5 % and 18.3 % of our total operating expenses for the years ended December 31, 2006 and December 31, 2007, respectively. Major components of the $2,455,044 in research and development expenses for the year ended December 31, 2007 included supplies and reagents for our research activities, personnel costs, occupancy costs, equipment warranties and service, patent fees, stock-based compensation and sample procurement costs.

On March 5, 2007, we entered into a commission agreement with Shanghai Biochip ("SBC"). As part of the agreement, we will provide SBC with an exclusive license in China to provide services in China using our RGI-1 technology. In turn, SBC will perform RNA extraction from FFPE tissue specimens exclusively for us during the term of the agreement. SBC must perform all testing services pursuant to our instructions and we retain the right to generate and report all final results. Our agreement with SBC has an initial term of five years, with an automatic renewal for an additional three-year term unless either party gives 90 days notice in advance of the renewal date of its intent not to renew. Pursuant to the agreement, SBC will receive a percentage of the revenue collected from clients. Outside of certain shared costs, as specified in the agreement, we and SBC each are individually and separately responsible for our own costs.

On June 8, 2007 we completed our initial public offering of 3,000,000 shares of our common stock at $7.00 per share. Net proceeds from the initial public offering after deducting underwriting commissions and fees and direct expenses was approximately $17.2 million. Upon the closing of our initial public offering all of our outstanding shares of our preferred stock, including accrued but unpaid dividends, automatically converted into 4,360,467 shares of our common stock and all of our outstanding notes payable, including accrued but unpaid interest, automatically converted into 152,489 shares of our common stock. Both of these conversions were based on the initial public offering price of $7.00.

On July 26, 2007, we entered into an agreement with Hitachi Chemical Co., Ltd. ("Hitachi"), a leading diagnostics manufacturer in Japan (the "Hitachi Agreement"). Under the terms of this agreement, Hitachi will begin using our proprietary and patented techniques to extract genetic information from formalin-fixed paraffin-embedded ("FFPE") tissue samples collected in Southeast Asia, Australia and New Zealand. As part of this agreement, we will provide Hitachi with the technical information and assistance necessary to perform the testing services. Hitachi also plans to introduce the Company to potential new testing services customers in the region to expand the testing of FFPE clinical samples in Asia. The Southeast Asian countries covered under this agreement include Japan, North Korea, South Korea, Taiwan, Mongolia, Pakistan, Bangladesh, Sri Lanka, Nepal, Singapore, Malaysia, Indonesia, Brunei, Thailand, Myanmar, Laos, Cambodia, Vietnam and the Philippines. This Agreement has an initial term expiring on March 31, 2010, with an automatic renewal for one year at the end of the original period under the same terms and conditions. Pursuant to the agreement, Hitachi will receive a percentage of the revenue, as provided in the agreement, collected from the Company's clients in the territory covered by the agreement, for its testing services performed. Hitachi is responsible for expenses related to the cost of laboratory equipment and modification to the laboratory facilities, as well as the cost of reagents. The Company is responsible for costs related to additional laboratory equipment which shall be provided to Hitachi according to a separate equipment lease agreement.

On August 24, 2007, the board of directors increased the size of the board to six members and elected Gary Nusbaum to the board as a director of the Company. The board also determined that Mr. Nusbaum is an "independent director" pursuant to the requirements for memberships established by NASD Market place Rule 4350(c)(4). We filed a Form 8-K on September 6, 2007 reporting this event.

On November 1, 2007 we announced plans to make our test for Excision-Repair Cross-Complementing 1 (ERCC-1) gene expression for platin-based chemotherapy resistance available to selected institutions and clinical practice groups in the first quarter of 2008. The test will be offered only through our CLIA-certified laboratory in California. The initial launch will provide additional information about the clinical utility of ERCC-1 in the treatment of Non-Small Cell Lung Cancer (NSCLC); clinical practice activities such as sample acquisition, logistics, patient and physician communication; and the use of the test in normal clinical practice related to NSCLC.

Previously, we had announced the publication of results from a prospective study published in the July 1, 2007 issue of the Journal of Clinical Oncology. The data indicated that high expression of ERCC-1 in patients with advanced NSCLC predicts resistance to platin-based chemotherapy. These findings suggest that the measurement of ERCC-1 levels would play a role in individualizing treatment therapies for certain lung cancer patients. The multi-center, randomized study was designed to determine the overall response rate (complete plus partial responses) of patients with stage IIIb or IV NSCLC to cisplatin-based therapy by determining levels of the biomarker ERCC-1 mRNA in a paraffin-embedded tissue biopsy before administering treatment. We believe that this is the first prospective study using a biomarker to predict chemotherapy response in lung cancer. At this time we cannot reasonably estimate the expected impact, if any, or that our ERCC-1 test will have on our liquidity and future realization of revenues.

Critical Accounting Policies and Significant Judgments and Estimates

This discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities and expenses and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as revenues and expenses during the reporting periods. We evaluate our estimates and judgments on an ongoing basis. We base our estimates on historical experience and on various other factors we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results could therefore differ materially from those estimates under different assumptions or conditions. We believe the following critical accounting policies reflect our more significant estimates and assumptions used in the preparation of our financial statements.

Revenue Recognition

Revenues are derived from services provided to pharmaceutical companies and are recognized on a contract specific basis pursuant to the terms of the related agreements. Revenue is recognized in accordance with SEC Staff Accounting Bulletin No. 104, Revenue Recognition, which requires that four basic criteria must be met before revenue can be recognized: (1) persuasive evidence that an arrangement exists; (2) delivery has occurred and title and the risks and rewards of ownership have been transferred to the client or services have been rendered; (3) the price is fixed or determinable; and (4) collectibility is reasonably assured.

Revenues are recorded on an accrual basis as the contractual obligations are completed and as a set of assays is processed through our laboratory under a specified contractual protocol. Certain contracts have minimum assay requirements that, if not met, result in payments that are due upon the completion of the designated period. In these cases, revenues are recognized when the end of the specified contract period is reached.

On occasion, we may enter into a contract that requires the client to provide an advance payment for specimens that will be processed at a later date. In these cases, we record this advance as deferred revenue and recognize the revenue as the specimens are processed or at the end of the contract period, as appropriate.

We are subject to potentially significant variations in the timing of revenue recognized from period to period due to a variety of factors including: (1) the timing of when specimens are submitted to us for testing; and (2) the specific terms, such as minimum assay requirements in any given period, advance payment requirements, and term of agreement, as set forth in each contract we have with significant clients.

License Fees

We have licensed technology for the extraction of RNA and DNA from FFPE tumor specimens from USC in exchange for royalty fees on revenue generated by use of this technology. These royalties are calculated as a fixed percentage of revenue that we generate from use of the technology licensed from USC. Total license fees due under the royalty agreement to USC were $160,674 and $152,502 for the years ended December 31, 2006 and December 31, 2007, respectively. We also maintain a non-exclusive license to use Roche's polymerase chain reaction (PCR), homogenous PCR, and reverse transcription PCR processes. We pay Roche a fixed percentage royalty fee for revenue that we generate through use of this technology. Royalties due under this agreement totaled $221,861 and $219,721 for the years ended December 31, 2006 and December 31, 2007, respectively. These royalties are recorded as a component of cost of revenues in the statements of operations. We are subject to potentially significant variations in royalties recorded in any period. While the amount paid is based on a fixed percentage from revenues of specific tests pursuant to terms set forth in the agreements with USC and Roche, the amount due is calculated based on the revenue we recognize using the respective licensed technology. As discussed above, this revenue can vary from period to period as it is dependent on the timing of the specimens submitted by our clients for testing.

Accounts Receivable

We invoice clients as specimens are processed and any other contractual obligations are met. Our contracts with clients typically require payment within 45 days of the date of invoice. We maintain allowances for doubtful accounts for estimated losses resulting from the inability of our clients to make required payments. We specifically analyze accounts receivable and historical bad debts, client credit, current economic trends and changes in client payment trends when evaluating the adequacy of the allowance for doubtful accounts. Account balances are charged-off against the allowance when it is probable the receivable will not be recovered. To date, our clients have primarily been large pharmaceutical companies. As a result, bad debts to date have been minimal.

Income Taxes

We estimate our tax liability through calculations we perform for the determination of our current tax liability, together with assessing temporary differences resulting from the different treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which are recorded in our balance sheets. Our management then assesses the likelihood that deferred tax assets will be recovered in future periods through future operating results. To the extent that we cannot conclude that it is more likely than not that the benefit of such assets will be realized, we establish a valuation allowance to adjust the net carrying value of such assets. The carrying value of our net deferred tax assets assumes that we will be able to generate sufficient future taxable income, based on management's estimates and assumptions. These estimates and assumptions take into consideration future taxable income and ongoing feasible tax strategies in determining recoverability of such assets. Our valuation allowance is subject to significant change based on management's estimates of future profitability and the ultimate realization of the deferred tax assets.

Results of Operations

Years Ended December 31, 2007 and December 31, 2006

Revenues. Revenues were $7,789,789 for the year ended December 31, 2007, as compared to $6,017,025 for the comparable period in 2006, an increase of $1,772,764, or 30%. This growth was generated by revenue from our existing pharmaceutical company contracts and the initiation of fluorescent in situ hybridization, immunohistochemistry (or IHC) and bioinformatics services by us that commenced in the first quarter of 2007. Revenue from fluorescent in situ hybridization, IHC and bioinformatics services provided by us totaled $373,630, $375,119 and $957,000, respectively, for the year ended December 31, 2007. For the year ended December 31, 2007, two of our clients, GSK and Taiho, accounted for approximately 73 % of our revenue, as compared to approximately 85 % of our revenue for the year ended December 31, 2006.

Cost of Revenues. Cost of revenues for the year ended December 31, 2007 were $4,045,715 as compared to $2,456,071 for the year ended December 31, 2006, an increase of $1,589,644 or 65%. The increase resulted from increased volume of work from our various clients and costs associated with processing FISH and IHC assays. The primary components of these increased costs include a $582,107 increase in costs associated with fluorescent in situ hybridization and immunohistochemistry services which costs did not exist in 2006, expense associated with the issuance of stock options to employees and consultants totaling $414,692 which costs did not exist in 2006, $86,034 in depreciation and facility related costs, $185,768 in expense for laboratory reagents and supplies, $81,402 in patent fees and annuities and $99,200 in expenses associated with bioinformatics.

Research and Development Expenses. Research and development expenses were $2,455,044 for the year ended December 31, 2007, as compared to $1,261,981 for the same period in 2006, an increase of $1,193,063 or 95 %. This increase resulted primarily from share-based compensation related to stock options issued to employees and consultants of $236,297 which costs did not exist in 2006, an increase of $78,481, in equipment related expenses, an increase in patent costs of $613,121, which were previously accounted for as part of general and administrative expenses in 2006, an increase in personnel expenses of $143,625, and expense associated with an academic research collaboration of $73,329. We expect research and development expenses to increase as we work to develop additional aspects of our technology and to study diagnostic indicators for various forms of cancer.

General and Administrative Expenses. General and administrative expenses totaled $6,786,890 for the year ended December 31, 2007, as compared to $3,933,660 for the comparable period in 2006, an increase of $2,853,230 or 73%. This increase resulted primarily from $1,494,174 in expenses incurred to establish our laboratory in Scotland which costs did not exist in 2006, an increase in audit and accounting fees of $66,606 associated with our various business efforts and preparation for becoming a public company, an increase in our business consulting expenses of $79,915, share-based compensation expense of $898,666 related to stock options granted to our employees which was not part of our costs in 2006 and an increase of $119,235 in various corporate taxes. Our travel and business expenses increased $214,995 based on our international business development efforts and initial public offering. We expect general and administrative expenses to increase as a result of the need to hire additional administrative personnel and due to higher legal, accounting, compliance and related expenses associated with being a public company.

Interest Income. Interest income was $517,645 for the year ended December 31, 2007, compared with $138,598 for the same period in 2006. This $379,047 increase was due to higher average cash balances and higher rates of return during the period ending December 31, 2007.

Interest Expense. Interest expense was $28,668 for the year ended December 31, 2007 and $57,537 for the same period in the preceding year. This expense consists largely of a fixed amount on notes payable from our stockholders. The notes payable and accrued interest related to these notes payable was converted into shares of our common stock upon the closing of our recent public offering. Refer to Liquidity and Capital Resources below for further discussion regarding this matter.

Other Income. During the year ended December 31, 2006, the Company entered into an agreement with a client to provide certain testing services. In order to perform such testing services within the timeframe required by the client, which was by no later than June 30, 2006, the Company was required to purchase additional laboratory equipment totaling $179,000 which was reimbursed by the client pursuant to the terms of the agreement. This equipment was used to perform the services pursuant to this agreement and will continue to be used by the Company in its on-going operations over the useful life of the equipment which is estimated to be five years. Upon the purchase of the equipment, the Company recorded the $179,000 reimbursement of the equipment purchase, which is non-recurring in nature, as other non-operating income during the three months ended March 31, 2006.

Income Taxes

As of December 31, 2007 and 2006, a full valuation allowance has been recorded for the deferred tax assets since we do not believe the recoverability of the deferred income tax assets in the near future is more likely then not. Accordingly, an income tax provision/benefit has not been recognized during the years ended December 31, 2007 and 2006.

Liquidity and Capital Resources

We incurred net losses of $1,357,643 and $5,052,907 during the year ended December 31, 2006 and the year ended December 31, 2007, respectively. Since our inception in September 1999, we have incurred cumulative losses and as of December 31, 2007, we had an accumulated deficit of $20,320,191. We expect that our research and development, and general and administrative expenses will continue to increase and, as a result, we will need to generate significant revenues to achieve profitability.

Following is a summary of material agreements we have entered into during fiscal year 2006 and fiscal year 2007 and the expected impact these agreements will or have had on our liquidity and future realization of revenues.

- In January 2006, we entered into an agreement with GSK pursuant to which we provide services in connection with profiling the expression of various genes from a range of human cancers. Under the agreement, we will provide GSK with testing services as described in individual protocols and GSK will pay us for such services based on the pricing schedule established for each particular protocol. GSK is obligated to make minimum annual payments to us under the agreement and also was obligated to make a non-refundable upfront payment to us, to be credited against, of which $600,000 was recognized in 2006 work undertaken pursuant to the agreement. In January 2006, we received an upfront payment of $2 million. The contract also provides for minimum annual assay testing requirements over a three year period ending January 2009. The minimum amount of revenue to be recognized during the term, which will expire in January 2009, will be $6,500,000. The timing of the recognition of these amounts is dependent upon when GSK submits the specimens for testing. During the year ended December 31, 2006 and the year ended December 31, 2007, we recognized $2,374,800 and $2,818,288 respectively, of revenue under this agreement.

- In December 2006, we entered into an agreement with GSK Bio pursuant to which we will provide testing services, principally in relation to profiling the expression of various genes from a range of human cancers. We will conduct the testing services on tissue specimens provided by GSK Bio. The agreement required that GSK Bio make an upfront payment of $2,620,000 which was received by us in December 2006. The agreement further specifies that GSK Bio will pay annual minimum payments in 2007, 2008 and 2009 and that the upfront payment made in December 2006 will be credited against the annual minimum payments in 2007 and 2008. The agreement also provides that any differences between the annual minimum payments made in 2007, 2008 or 2009 and the amounts due to us for testing services performed on specimens submitted by GSK Bio during the three years ended December 31, 2009 be credited towards services performed during the year ending December 31, 2010, the final year of the agreement. In December 2007 we amnded our agreement with GSK Bio whereby GSK Bio would make the remaining minimum payments under the agreement in one lump sum. This payment was received in January 2008. The minimum amount of revenue to be recognized during the term of this contract, which will expire in December 2010, is approximately $7,300,000. The timing of the recognition of these amounts is dependent upon when GSK submits the specimens for testing. We recognized $938,701 of revenue under this agreement during the year ended December 31, 2007. There was no revenue recognized under this agreement for 2006.

- In March 2007, we entered into a commission agreement with Shanghai Biochip ("SBC"). Pursuant to the agreement, SBC will provide testing services in China using our RGI-1 extraction technology. Under this agreement, we will provide SBC with an exclusive license in China to provide services in China using our technology. Pursuant to the agreement, SBC will receive a percentage of the revenue collected from clients. Our agreement with SBC has an initial term of five years. At this time, we cannot reasonably estimate the expected impact, if any, that this agreement will have on our liquidity and future realization of revenues.

- In July 2007, we entered into a commission agreement with Hitachi. Under the agreement, we will provide Hitachi with the technical information and assistance necessary to perform testing services. Hitachi will use our proprietary and patented techniques to extract genetic information from FFPE tissue samples collected in Southeast Asia, Australia and New Zealand. Pursuant to the agreement, Hitachi will receive a percentage of the revenue collected from our clients. Our agreement with Hitachi has an initial term of three years, ending March 31, 2010. At this time, we cannot reasonably estimate the expected impact, if any, that this agreement will have on our liquidity and future realization of revenues.

We expect to use our capital to fund research and development and to make capital expenditures to keep pace with the expansion of our research and development programs and to scale up our commercial operations. The amount and timing of actual expenditures may vary significantly depending upon a number of factors, such as the progress of our product development, regulatory requirements, commercialization efforts, and the amount of cash used by operations. We expect that we will continue to generate revenue through our pharmacogenomic testing services business provided to pharmaceutical companies, but these revenues are not guaranteed and are not expected to substantially offset the costs associated with our expansion efforts.

We lease office and laboratory space for our location in Los Angeles under noncancelable operating leases that expire through March 2010. Additionally, in 2007, the Company entered into an agreement to lease office and laboratory space for our operations in Scotland. This is an operating lease which expires in March, 2010. Rent expense for our facilities was $270,674 and $587,669 for the years ended December 31, 2007 and 2006, respectively. Future minimum lease payments aggregate to approximately $1,535,540 over the next three years through the expiation of the leases.in, 2010.

Comparison of Years Ended December 31, 2007 and 2006

As of December 31, 2007, we had $17,024,209 in cash and cash equivalents, working capital of $13,275,967 and an accumulated deficit of $20,320,191.

Cash flows provided by operating activities

During the year ended December 31, 2007, the Company generated negative cash flows from operations of $3,485,000 compared to a positive cash flow of $3,177,000 in operations in the year ended December 31, 2006. The reasons for the change in cash flows of $6,662,000 from positive cash flow to negative cash flow was due mainly to the increase in net loss of $3,695,000, in combination of an increase in receivables, a decrease in prepaid expenses, accounts payable, accrued expenses, accrued payroll, bonus and related liabilities, and an increase in deferred revenue.

The increase in accounts receivable, of $2,919,000, and deferred revenue, of $3,033,000, related mainly to 1 receivable for deferred revenue related to an amendment entered into in the fourth quarter of 2007 to the contract with GSK Bio. This amendment changed the Company receiving monthly payments of 153,922 Euros($210,873 using the average conversion rate for the year ended December 31, 2007) to a single advance payment amounting to $2.4 million prior to December 31, 2007, which was not received until subsequent to year end. In addition, the Company has had in increase in deferred revenue of $332,000 related to an increase in advance billings to Taiho, which under the Company's contract with Taiho, the Company is allowed to bill for services upon receipt of the sample, and Taiho is liable to the Company at the time of the sample being provided.

The decrease in prepaid expenses and accrued expenses is related to the completion of the IPO process at which point $614,000 of prepaid IPO costs incurred in the year ended December 31, 2006 were utilized in the year ended December 31, 2007, and $301,000 of accrued expenses as of December 31, 2006 were paid with the proceeds of the IPO in June 2007. The change related to accounts payable is due to the ability of the Company to pay its payables within 30 days of incurring the charges, due to increased cash on hand related to funds received in the IPO process, resulting in an overall decrease in accounts payable.

The change in accrued payroll, bonus and related liabilities is due to the slight decrease in bonuses granted and accrued as of December 31, 2006 of $500,000 versus accrued bonuses of $415,000 as of December 31, 2007. The bonuses accrued as of December 31, 2006 were a 100% increase in accrued bonuses as none were granted and accrued for the year ended December 31, 2005.

Cash flows used in investing activities

Net cash used in investing activities was $1,980,435 for the year ended December 31, 2007 and $880,720 for the year ended December 31, 2006. This increase in the use of cash of $1,099,715 was primarily attributable to the increased purchase of laboratory equipment in connection with establishing the testing facility in the UK. Laboratory equipment purchased included additional microarray capability, fluorescent in situ hybridization equipment and robotic polymerase chain reaction equipment.

Cash flows used in financing activities

Net cash provided by financing activities increased $17,593,512, as a result of our initial public offering which was completed on June 8, 2007.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements.

Recent Accounting Pronouncements

On July 13, 2006, the FASB issued FASB Interpretation No. 48, which interprets SFAS No. 109, "Accounting for Income Taxes." FIN 48 clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with FASB Statement No. 109, Accounting for Income Taxes. FIN 48 also prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return that results in a tax benefit. Additionally, FIN 48 provides guidance on de-recognition, income statement classification of interest and penalties, accounting in interim periods, disclosure, and transition. This interpretation is effective for fiscal years beginning after December 15, 2006. The adoption of FIN 48 did not have a material impact on our financial position, results of operations or cash flows.

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements* . SFAS No. 157 establishes a framework for measuring fair value in generally accepted accounting principles, and expands disclosures about fair value measurements. The standard applies whenever other standards require (or permit) assets or liabilities to be measured at fair value. The standard does not expand the use of fair value in any new circumstances. SFAS No. 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007, and interim periods within those fiscal years. Earlier application is encouraged. We are currently evaluating the effect that adoption of SFAS No. 157 will have on our financial position, results of operations or cash flows.

In February 2007, the FASB issued SFAS No. 159, "The Fair Value Option for Financial Assets and Financial Liabilities — Including an amendment of FASB Statement No. 115". SFAS 159 permits companies to choose to measure certain financial instruments and other items at fair value. SFAS 159 also establishes presentation and disclosure requirements designed to facilitate comparison between entities that choose different measurement attributes for similar types of assets and liabilities. The standard is effective for fiscal years beginning after November 15, 2007. We are evaluating the impact of the adoption of SFAS 159 on our consolidated financial statements.

In December 2007, FASB issued SFAS No. 141(R), "Business Combinations", an amendment of SFAS No. 141, which improves the relevance, representational faithfulness, and comparability of the information that a reporting entity provides in its financial reports about a business combination and its effects. SFAS 141(R) applies for all business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. We do not expect adoption of SFAS 141(R) to have a material impact on the Company's financial statements.

In December 2007, FASB issued SFAS No. 160, "Noncontrolling Interests in Consolidated Financial Statements - an amendment of Accounting Research Bulletin No. 51," which amends ARB 51 to establish accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary. SFAS 160 is effective for fiscal years beginning on or after December 15, 2008. We do not expect adoption of SFAS 160 to have a material impact on the Company's financial statements.

In March 2008, FASB issued SFAS No. 161, "Disclosures about Derivative Instruments and Hedging Activities—an amendment of FASB Statement No. 133" which establishes the disclosure requirements for derivative instruments and for hedging activities. This Statement amends and expands the disclosure requirements of Statement 133 with the intent to provide users of financial statements with an enhanced understanding of derivative instruments and hedging activities. SFAS 61 is effective for financial statements issued for fiscal years and interim periods beginning after November 15, 2008, with early adoption encouraged. We do not expect adoption of SFAS 160 to have a material impact on the Company's financial statements.

Item 7. Financial Statements.

Our consolidated financial statements and related notes are included in this annual report beginning on page F-1.

Item 8. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure

None.

Item 8(A)(T).

This annual report does not include a report of management's assessment regarding internal control over financial reporting or an attestation of the Company's registered public accounting firm due to a transition period established by the rules of the Securities and Exchange Commission for newly public companies.

Item 8B. Other Information.

None.

Part III

Item 9. Directors, Executive Officers, Promoters, Control Persons and Corporate Governance; Compliance With Section 16(a) of the Exchange Act.

Our executive officers and directors and their respective ages and positions as of December 31, 2007 are as follows:

Name	Age	Position
Tom DeMeester, M.D.	69	Chairman of the Board
Kathleen Danenberg	60	Director, Chief Executive Officer and President
David M. Smith	41	Vice Chairman of the Board
Michael Serruya	44	Director
Hubertus Spierings	63	Director
Gary D. Nusbaum	41	Director
Thomas Stankovich	47	Vice President, Chief Financial Officer and Secretary
James Clark	39	Vice President and Chief Operating Officer
Denise McNairn	40	Vice President and General Counsel

The following is a brief summary of the background of each of our executive officers, and directors. There are no family relationships among any of the executive officers or directors.

Tom R. DeMeester, M.D. has been the Chairman of our board of directors since March 2000. Dr. DeMeester has been the Chairman of the Department of Surgery and Professor of General and Cardiothoracic Surgery at the USC School of Medicine since 1990. From 1984 to 1990, Dr. DeMeester served as Chairman and Professor of the Department of Surgery at Creighton University School of Medicine. Dr. DeMeester received his M.D. from the University of Michigan School of Medicine and a B.A. from Calvin College.

Kathleen Danenberg has been our Chief Executive Officer and President since 2002. Prior to that, she served as our Vice President and Chief Scientific Officer from December 2000 to December 2002. Ms. Danenberg has served as one of our board members since March 2000. Ms. Danenberg's began her career in molecular research and developed broad expertise in a variety of areas and applications. While at USC, Ms. Danenberg invented a breakthrough patented method to extract RNA from formalin-fixed paraffin embedded tissue specimens which became the basis for the establishment of Response Genetics, Inc. Prior to her work at USC, Ms. Danenberg received her B.S. in biochemistry from the University of Wisconsin. Ms. Danenberg has over 100 scientific publications to her credit.

David M. Smith is a founder and has served as Vice Chairman and a Director of our board of directors since December 1999. From 1998 until 2005, Mr. Smith was an Executive Vice President and Director, and later, Chief Operating Officer of CoolBrands International Inc. (TSE:COB.A), and from 1993 until 2006, he was a Director, and later the Chairman and Chief Executive Officer, of Calip Dairies, a privately held consumer products company. Mr. Smith was also the Chairman and Chief Executive Officer of Hempstead Capital Corporation, a private holding company, until it was acquired in 2006. Mr. Smith is currently the founder and Managing Partner of Smith Global Ventures, a privately held venture firm. Mr. Smith received a B.A. degree and graduated with honors from Boston University.

Michael Serruya has served on our board of directors since March 2000. Since February 2000, Mr. Serruya has been Chairman of Yogen Fruz World Wide Incorporated, and from 1995 to February 2000 he was President, Chief Executive Officer and Chairman of Yogen Fruz, a consumer products company. Mr. Serruya was also a member of the Ontario Jobs and Investment Board, an Ontario government organization. Mr. Serruya is currently the President and Chief Executive Officer of CoolBrands International Inc. (TSE:COB.A). Mr. Serruya attended Ryerson Polytechnical Institute.

Hubertus Spierings has served on our board of directors since June 4, 2007. From 1992 until 2002, Mr. Spierings served as a non-executive chairman of the board of Cargill International S.A., a subsidiary of a privately held agricultural management company, and from 1999 until 2002, he served as executive vice president of Cargill, Inc, a privately held agricultural management company. Mr. Spierings is currently serving as a director on the board of directors of the International Management Institute-Kyiv, a private Ukranian professional school. Mr. Spierings earned a degree in economics from Nyenrode N.O.I.B. (an international business college in the Netherlands).

Gary D. Nusbaum has served on our board of directors since August 24, 2007. From 1989-2002, Mr. Nusbaum was at the Private Equity firm Warburg Pincus, where he was a Managing Director, and from 2003 until 2005, Mr. Nusbaum was a Managing Director at Aetos Capital, an asset management firm. At Aetos Capital, Mr. Nusbaum was the firm's Chief Financial Officer, and also headed its private equity business. In 2006, Mr. Nusbaum joined Palladium Equity Partners, LLC, as a Managing Director. Mr. Nusbaum received his Bachelor of Science in Economics and Master of Business Administration degrees from The Wharton School of the University of Pennsylvania. He has been a board member of several public and private companies.

Thomas Stankovich has served as our Vice President, Chief Financial Officer and Secretary in November 2006. Mr. Stankovich has gained financial and business experience over the past 20 years working in both domestic and international operations with publicly-traded companies in the pharmaceutical and biotechnology industries. Mr. Stankovich most recently was Executive Vice President and Chief Financial officer at Cobalis Corp. (Nasdaq: CLSC) from December 2005 until he joined us. Subsequent to Mr. Stankovich's departure from Cobalis in December, 2006, Cobalis declared Chapter 11 bankruptcy in October, 2007. Prior to his position at Cobalis Corp., he worked at MP Biomedicals, LLC where he served as Senior Vice President and Chief Financial Officer from July 2003 to December 2005. From January 2003 through July 2003 Mr. Stankovich worked as a financial consultant. He served as Senior Vice President and Chief Financial Officer for Ribapharm, Inc. (NYSE: RNA) from December 2001 to January 2003 (now part of Valeant Pharmaceuticals International) (NYSE: VRX) where he helped complete an initial public offering in April 2002. Since 1986, Mr. Stankovich has served in various executive financial management positions for ICN Pharmaceuticals, Inc. (NYSE: ICN) (now renamed Valeant Pharmaceuticals International) including Vice President, Chief Financial Officer for ICN International A.G., and Vice President and Controller for ICN Europe. Mr. Stankovich holds Bachelor of Science degrees in both accounting and finance from California State University, Northridge.

James Clark has served as our Vice President and Chief Operating Officer in October 2006. From June 1, 2003 to August 31, 2006, Dr. Clark served as head of the Cancer Molecular Biology, Technology group at GlaxoSmithKline — Biologicals (NYSE: GSK). From 1995 to 2003, Dr. Clark served as a Senior Research Fellow within the Department of Medicine, University of Glasgow, where he began his career developing molecular techniques and applications for the study of the immune response to breast cancer. Dr. Clark received his B.S.c from Heriot-Watt University, Edinburgh, Scotland and his Ph.D. from the Department of Biochemistry, University of Glasgow, Scotland.

Denise McNairn has served as our Vice President and General Counsel in February 2007. Prior to joining us, from 2001 to 2007, Ms. McNairn was an attorney at Kenyon & Kenyon LLP. Prior to working for Kenyon & Kenyon, Ms. McNairn worked as a Technology Transfer Specialist at the National Cancer Institute Technology Transfer Branch, where she began her career in drafting and negotiating transactional agreements. Ms. McNairn received her B.S. from Virginia Polytechnic Institute and State University, an M.S. from Johns Hopkins University and her J.D. from the University of Maryland School of Law.

There is no pending litigation or proceeding involving any of our directors, officers, employees or agents in which indemnification will be required or permitted. We are not aware of any threatened litigation or proceeding that may result in a claim for such indemnification.

Compliance with Section 16(a) of the Exchange Act

Our records reflect that all reports which were required to be filed pursuant to Section 16(a) of the Exchange Act were filed on a timely basis, except that a total of 14 reports were inadvertently filed late by certain of our directors, executive officers and beneficial owners of more than 10% of our common stock which include David M. Smith (3), Susan Smith (3), Denise McNairn (1), Kathleen Danenberg (1), Clara Serruya (1), Samuel Serruya (1), Michael Serruya (1), Gary Nusbaum (2), and Hubertus Spierings (1) during the fiscal year ended December 31, 2007.

Code of Ethics

We have adopted a Code of Ethics that applies to all of our employees and directors, including our principal executive officer and our principal financial officer. The Code of Ethics is filed as Exhibit 14 to our Registration Statement on Form SB-2 (File No. 333-139534) and is also available on our website at www.responsegenetics.com.

Audit Committee and Audit Committee Financial Expert

Our Board has appointed an audit committee and has adopted a written audit committee charter. The audit committee does not have a financial expert and is not yet fully independent, because the Company is availing itself of the phase-in provisions afforded to us by NASDAQ Marketplace Rule 4350(a)(5). The Company does not believe that this will have a material effect on the committee's ability to perform its obligations with regard to the preparation of and disclosure in the 10-KSB. The Company expects that it will have a fully independent audit committee and that it will have appointed and an audit committee financial expert by the expiration of the phase-in period.

Nominating and Governance Committee

The Company has a nominating and governance committee and has adopted a written nominating and governance charter. The nominating and governance committee has adopted procedures for Company shareholders to submit recommendations for nomination to the Company's Board of Directors (the "Board"). As required by these procedures, all shareholder nominating recommendations must be in writing, addressed to the Committee care of the Company's corporate secretary at the Company's principal offices. Submissions must be made by mail, courier or personal delivery. A nominating recommendation must also be accompanied by the following information concerning each recommending shareholder: the name and address, including telephone number, of the recommending shareholder; the number of the Company's shares owned by the recommending shareholder and the time period for which such shares have been held; if the recommending shareholder is not a shareholder of record, a statement from the record holder of the shares (usually a broker or bank) verifying the holdings of the shareholder and a statement from the recommending shareholder of the length of time that the shares have been held; and a statement from the shareholder as to whether the shareholder has a good faith intention to continue to hold the reported shares through the date of the Company's next annual meeting of shareholders. In addition, a nominating recommendation must be accompanied by the following information concerning the proposed nominee: the information required by Item 401 of Regulation S-K (generally providing for disclosure of the name, address, and business experience for the past five years of the proposed nominee, as well as information regarding certain types of legal proceedings within the past five years involving the nominee); the information required by Item 403 of Regulation S-K (generally providing for disclosure regarding the proposed nominee's ownership of securities of the Company); and the information required by Item 404 of Regulation S-K (generally providing for disclosure of transactions between the Company and the proposed nominee valued in excess of $60,000 and certain other types of business relationships with the Company). These procedures are provided as Appendix B to the committee charter and are available on the Investor Relations section of our website at www.responsegenetics.com.

Item 10. Executive Compensation.

The following summary compensation table sets forth summary information as to compensation earned during the year ended December 31, 2007 by our Chief Executive Officer, Chief Financial Officer, Chief Operating Officer and General Counsel, who we collectively refer to as our "Named Executive officers" elsewhere.

Summary Compensation Table

Name and Principal Position	Year	Salary ($)	Bonus ($)	Stock Options ($) A	All Other Compensation (B)	Total ($)
Kathleen Danenberg, President and CEO	2007	$ 350,000	$ 175,000	689,836	$ 90,673	$ 1,305,509
	2006	$ 354,000	$ 903,700		$	$ 1,257,700
Thomas Stankovich, Vice President, Chief Financial Officer and Secretary	2007	$ 220,000	$ 80,000	44,387	$	$ 344,387
James Clark, Vice President, Chief Operating Officer	2007	$ 237,600	$ 80,000	44,314	$ -	$ 361,914
Denise McNairn, Vice President, General Counsel	2007	$ 225,000	$ 80,000	44,576	$	$ 349,576

(A) Represents the compensation expense related to outstanding stock options we recognized for the year ended December 31, 2007 under Statement of Financial Accounting Standards 123R to our named executive officers. Assumptions used in the calculation of these amounts are included in Note 11 to our financial statements for the year ended December 31, 2007.

(B) "All Other Compensation" includes (i) clothing expenses that total a net of $86,622; and (ii) miscellaneous personal services of $ 4,051.

All bonuses for 2007 were awarded on February 12, 2008 and paid on February 19, 2008.

Employment Agreements and Change in Control Arrangements

The Danenberg Employment Agreement

We entered into an employment agreement with Ms. Danenberg on December 11, 2000. This previous agreement was superceded by a new employment agreement, which we entered into as of October 26, 2006, as amended on December 14, 2006 and on May 29, 2007, for the position of President and Chief Executive Officer. The agreement has an initial term of three years, with automatic one-year renewal terms thereafter. Ms. Danenberg is to receive an initial base salary of $350,000 per year, subject to annual adjustments at the discretion of the Board. Ms. Danenberg also is eligible to earn a minimum of 40% of her base salary as an annual bonus based upon our meeting certain performance targets and her meeting personal objectives as determined by our board of directors.

We granted Ms. Danenberg non-qualified stock option under the 2006 Stock Plan, in an amount equal to 3% of the number of shares of our common stock outstanding on October 26, 2006 on a fully diluted basis or 212,577 options at an exercise price equal to $7.00, which was the initial public offering price of our common stock (the "IPO Price"). One third of these options will vest immediately upon the issuance of the options and the remainder shall vest in two equal installments on the first and second anniversary of the date of Ms. Danenberg's employment agreement (October 26, 2006). The options will vest immediately upon a change in control. Ms. Danenberg will be eligible for future option grants as approved by our board of directors. We will provide Ms. Danenberg with a monthly allowance of $1,000 to cover miscellaneous business expenses and a $1,000 monthly automobile allowance. We agreed to cover up to $5,000 of Ms. Danenberg's legal fees incurred in the negotiation of her employment agreement and up to $1,000 of Ms. Danenberg's legal fees incurred in the negotiation of the amendment to her employment agreement.

In the event that Ms. Danenberg's employment is terminated without cause or for good reason, as defined under the agreement, we are obligated to pay her severance equivalent to the greater of (a) one full year of base pay and benefits; or (b) the base pay and benefits for the remaining term of the employment agreement. In addition, within forty-five days of her termination, we are obligated to pay her the pro rata portion of the bonus earned as of her termination date. In addition the portion of Ms. Danenberg's options that are vested as of the date of her termination shall be exercisable for one year from the date of her termination. In the event the employment agreement is terminated because of Ms. Danenberg's death, or because of a disability as defined in the employment agreement, Ms. Danenberg or her estate will be entitled to receive her base pay and pro rata bonus earned as of the date of death or disability, and we will provide benefits coverage for a period of 12 months following the date of such death or disability to Ms. Danenberg or her heirs as the case may be.

In the event a change in control occurs during Ms. Danenberg's employment, she has agreed not to resign her employment voluntarily for a period of six months following the effective date of the change in control. If she is terminated within such six-month period without cause or she resigns for good reason, in addition to any other benefits to which she is entitled and provided she executes a release of claims, Ms. Danenberg will be entitled to a lump sum payment equivalent to a month of base pay at her then current annual rate for each month during such six-month period for which she has yet to complete service to us at the time of such termination, within forty-five days following such termination. The employment agreement also places certain confidentiality, assignment of inventions and non-solicitation obligations on Ms. Danenberg.

The Stankovich Employment Agreement

We have entered into an Employment Agreement with Thomas Stankovich, dated as of October 25, 2006, as amended on May 29, 2007 for the position of Vice President and Chief Financial Officer. He commenced employment on November 27, 2006. The agreement has an initial term of three years with automatic one-year renewal terms thereafter. The agreement provides for Mr. Stankovich to receive an initial base salary of $220,000 per year. Mr. Stankovich also is eligible to earn an annual bonus based upon our meeting certain performance targets and his meeting personal objectives as agreed upon with the CEO and approved by our board of directors.

We granted Mr. Stankovich a non-qualified stock option under the 2006 Stock Plan, in an amount equal to 1% of the number of shares of our common stock outstanding on November 27, 2006, on a fully diluted basis, or 70,976 options, at an exercise price equal to the IPO Price. The shares vest in equal annual amounts over a four-year period, beginning on the first anniversary of the initial grant date. The options will vest immediately upon a change in control. Mr. Stankovich will be eligible for additional option grants as approved by our board of directors. In the event that a change in control occurs within the first year of Mr. Stankovich's employment, and regardless of whether he is terminated, we are obligated to give him a cash payment equal to six months salary at his base salary rate at the time of change in control, as defined in the employment agreement. In the event that a change in control occurs within the second or third years of his employment, regardless of whether he is terminated, we are obligated to give him a cash payment equal to nine months salary at his base salary rate at the time of the change in control. In the event that Mr. Stankovich's employment is terminated without cause or he resigns for good reason as defined under the agreement, during the first year of his employment, we are obligated to pay him severance equal to six months salary at his base salary rate at the time of termination. In the event that Mr. Stankovich's employment is terminated without cause or he resigns for good reason within the second or third years of his employment, we are obligated to pay him severance equal to nine months salary at his base salary rate at the time of termination. In the event of Mr. Stankovich's termination without cause, the portion of the his options that are vested as of the date of his termination shall be exercisable for one year from the date of his termination. The employment agreement also places certain confidentiality, assignment of inventions and non-solicitation obligations on Mr. Stankovich.

The Clark Employment Agreement

We have entered into an Employment Agreement with James Clark, dated as of October 26, 2006, for the position of Vice President and Chief Operating Officer. The agreement provides for Dr. Clark to receive an initial base salary of £120,000 (approximately $230,000) per year. Dr. Clark also is eligible to earn an annual bonus based upon our meeting certain performance targets and his meeting personal objectives as agreed upon with the CEO and approved by our board of directors. Dr. Clark is eligible to participate in our employee benefit plans and we are required to reimburse him for reasonable business-travel expenses.

Should either Dr. Clark or we give the other notice of the intention to terminate Dr. Clark's employment, we may elect to terminate his employment immediately and we will be obligated, upon so electing, to pay to Dr. Clark a sum equal to his base salary exclusive of any contractual bonus or benefit in kind for the unexpired portion of the contractual notice entitlement. This obligation ceases if Dr. Clark commences alternate employment within the entitled notice period.

We granted Dr. Clark a non-qualified stock option under the 2006 Stock Plan, in an amount equal to 1% of the number of shares of our common stock outstanding on November 1, 2006 on a fully diluted basis or 70,859 options, at an exercise price equal to the IPO Price. The shares vest in equal annual amounts over a four-year period, beginning on the first anniversary of the initial grant date. The options will vest immediately upon a change in control. Dr. Clark will be eligible for additional option grants as approved by our board of directors. In the event of Dr. Clark's termination without cause or for good reason, the portion of his options that are vested as of the date of his termination shall be exercisable for one year from the date of his termination. The employment agreement with Dr. Clark contains confidentiality, non-competition and non-solicitation provisions.

The McNairn Employment Agreement

We have entered into an Employment Agreement with Denise McNairn, dated as of February 20, 2007, as amended on May 29, 2007 for the position of Vice President and General Counsel. The agreement has an initial term of three years with automatic one-year renewal terms thereafter. The agreement provides for Ms. McNairn to receive an initial base salary of $225,000 per year. Ms. McNairn also is eligible to earn an annual bonus of up to 35% of her base salary based upon our meeting certain performance targets and her meeting personal objectives as agreed upon with the CEO and approved by our board of directors. Ms. McNairn is eligible to participate in our employee benefit plans.

We granted Ms. McNairn a non-qualified stock option under the 2006 Stock Plan, in an amount equal to 1% of the number of shares of our common stock outstanding on February 20, 2007 on a fully diluted basis, or 71,278 options, at an exercise price equal to the IPO Price. The shares vest in equal annual amounts over a four-year period, beginning on the first anniversary of the initial grant date. The options will vest immediately upon a change in control. Ms. McNairn will be eligible for additional option grants as approved by our board of directors.

In the event that a change in control occurs within the first year of Ms. McNairn's employment, and regardless of whether she is terminated, we are obligated to make cash payments to her equal to six months salary at her base salary rate at the time of change in control, as defined in the employment agreement. In the event that a change in control occurs within the second or third years of her employment, regardless of whether she is terminated, we are obligated to make cash payments equal to nine months salary at her base salary rate at the time of the change in control. In the event that Ms. McNairn's employment is terminated without cause or she resigns for good reason, as defined under the agreement, during the first year of her employment we are obligated to pay her severance equal to six months salary at her base salary rate at the time of termination. In the event that Ms. McNairn's employment is terminated without cause or she resigns for good reason within the second or third years of her employment, we are obligated to pay her severance equal to nine months salary at her base salary rate at the time of termination. In the event of Ms. McNairn's termination without cause, the portion of her options that are vested as of the date of her termination shall be exercisable for one year from the date of her termination. The employment agreement also places certain confidentiality, assignment of inventions and non-solicitation obligations on Ms. McNairn.

Outstanding Equity Awards at 2007 Fiscal Year-End

Name and Principal Position	Grant Date	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Options Exercise Price ($)	Option Expiration Date
Kathleen Danenberg President and CEO	6/4/07	70,859	141,718	7.00	6/4/17
Thomas Stankovich, Chief Financial Officer	6/4/07	-	70,976	7.00	6/4/17
James Clark, Chief Operating Officer	6/4/07	-	70,859	7.00	6/4/17
Denise McNairn, General Counsel	6/4/07	-	71,278	7.00	6/4/17

We granted Ms. Danenberg non-qualified stock option under the 2006 Stock Plan, in an amount equal to 3% of the number of shares of our common stock outstanding on October 26, 2006 on a fully diluted basis or 212,577 options at an exercise price equal to the initial public offering price of our common stock. One third of Ms. Danenberg's options will vest immediately upon the issuance of the options and the remainder shall vest in two equal installments on the first and second anniversary of the date of Ms. Danenberg's employment agreement (October 26, 2006). The options will vest immediately upon a change in control.

We granted Mr. Stankovich a non-qualified stock option under the 2006 Stock Plan, in an amount equal to 1% of the number of shares of our common stock outstanding on November 27, 2006, on a fully diluted basis, or 70,976 options, at an exercise price equal to the initial public offering price of our common stock. The shares vest in equal annual amounts over a four-year period, beginning on the first anniversary of the initial grant date. The options will vest immediately upon a change in control.

We granted Dr. Clark a non-qualified stock option under the 2006 Stock Plan, in an amount equal to 1% of the number of shares of our common stock outstanding on November 1, 2006 on a fully diluted basis or 70,859 options, at an exercise price equal to the initial public offering price of our common stock. The shares vest in equal annual amounts over a four-year period, beginning on the first anniversary of the initial grant date. The options will vest immediately upon a change in control.

We granted Ms. McNairn a non-qualified stock option under the 2006 Stock Plan, in an amount equal to 1% of the number of shares of our common stock outstanding on February 20, 2007 on a fully diluted basis, or 71,278 options, at an exercise price equal to the initial public offering price of our common stock. The shares vest in equal annual amounts over a four-year period, beginning on the first anniversary of the initial grant date. The options will vest immediately upon a change in control.

Compensation of Directors

Director Compensation

The table shows the compensation provided to our current non-employee directors for 2007.

Name	Fees earned or paid in cash ($) (a)	Option awards ($) (b)	Total ($)
Hubertus Spierings	13,000	7,161	20,161
Gary Nusbaum	12,500	2,720	15,220

(a) A full description of all fees paid to our directors is provided below. The cash portion of fees paid represent: 100% of the annual retainer and 100% of the committee meeting fees described below.

(b) Represents the compensation expense related to outstanding stock options we recognized for the year ended December 31, 2007 under Statement of Financial Accounting Standards 123R to our named executive officers. Assumptions used in the calculation of these amounts are included in Note 11 to our financial statements for the year ended December 31, 2007.

None of Mr. Smith, Mr. Serruya or Dr. DeMeester received compensation for serving as our directors in 2007.

We paid Mr. Spierings and Mr. Nusbaum an annual retainer of $12,000 for their services on the board of directors. In addition, Mr. Spierings and Nusbaum received $500 for participating in each audit committee meeting. We also granted Mr. Spierings a non-qualified option to purchase 11,500 shares of common stock at an exercise price equal to $7.00, the initial public offering price, which vests quarterly over a four year period. Mr. Nusbaum was granted a non-qualified option to purchase 11,500 shares of common stock at an exercise price equal to the exercise price of $4.29, which vests quarterly over a four year period. Each year the board of directors will grant Mr. Spierings an option to purchase an additional 11,500 shares of common stock, with an exercise price equal to the fair market value of the common stock on the date of grant, with the same vesting schedule and other terms and conditions as those options granted upon consummation of the initial public offering.

On May 29, 2007, the board of directors adopted a director compensation policy. Under the terms of this policy, all new directors, upon commencement of their service on the board and all current directors, beginning upon the commencement of our 2008 fiscal year were to receive the following:

- An annual retainer of $12,000.

- An option to purchase 11,500 shares of our common stock at an exercise price equal to the fair market value of our common stock on the date of grant, vesting quarterly over a four-year period, and an option to purchase 11,500 shares of common stock, vesting quarterly over a period, each year thereafter. Continued vesting of the options is subject to continued service on the board of directors.

All members of the audit committee of the board of directors also will receive a payment of $500 for each audit committee meeting attended.

All directors will be reimbursed for reasonable expenses related to or in connection with each director's service on our board of directors.

On February 12, 2008, the Compensation Committee of the Board of Directors revised and adopted a director compensation policy. Under the terms of this policy, all new directors, upon commencement of their service on the board and all current directors, beginning with fiscal year 2008 will receive the following:

An annual retainer of $20,000 (twenty thousand dollars) to be paid quarterly in arrears on the last day of the quarter.

All members of the audit committee, the compensation committee and the nominating and governance committee of the board of directors also will receive a payment of $500 for each meeting of the respective committee attended, either in person or telephonically.

The Chairman of each of the committees of the board of directors will receive a payment of $750 for each meeting of the committee meetings attended, either in person or telephonically.

Item 11. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The following table sets forth as of December 31, 2007 certain information regarding the beneficial ownership of our common stock by:

- each stockholder known by us to own beneficially more than five percent of our common stock;
- each of the executive officers named in the summary compensation table;
- each of our directors; and
- all of our current directors and executive officers as a group.

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to the securities.

The number of shares of common stock and the percentage of common stock beneficially owned based on a total of 10,239,276 shares of common stock outstanding on February 27, 2008 and includes shares of common stock issuable within 60 days of February 29, 2008.

Except as indicated in the footnotes to this table, we believe that the stockholders named in this table have sole voting and investment power with respect to all shares of common stock shown to be beneficially owned by them, based on information provided to us by such stockholders. Unless otherwise indicated, the address for each director and executive officer listed is c/o Response Genetics, Inc., 1640 Marengo St., 6th Floor, Los Angeles, CA 90033.

Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned
Directors and Executive Officers		
David M. Smith	1,922,393[1]	18.77%
Mike Serruya	1,732,595[2]	16.92%
Kathleen Danenberg	426,108[3]	4.16%
Tom DeMeester, MD	372,845	3.64%
Hubertus Spierings	-	-
Gary Nusbaum	-	-
Thomas Stankovich	-	-
James Clark	-	-
Denise McNairn	-	-
All current executive officers and directors as a group (7 persons)	4,524,800	44.19%
5% or more stockholders		
Susan Smith	1,922,393[4]	18.77%
Clara Serruya	1,732,595[5]	16.92%
Samuel Serruya	1,732,595[6]	16.92%
AWM Investment Co., Inc.	798,638[7]	7.80%
WSV Management LLC	514,440[8]	5.02%

(1) Includes 536,164 shares of common stock owned by his mother, Susan Smith, as to which Mr. Smith disclaims beneficial ownership.
(2) Includes 3,939 shares of common stock owned by Mr. Serruya, 864,328 shares of common stock owned by his father, Samuel Serruya, as to which Mr. Serruya disclaims beneficial ownership, 864,328 shares of common stock owned by his mother, Clara Serruya, as to which Mr. Serruya disclaims beneficial ownership.

(3) Includes of 426,108 shares of common stock jointly owned by Ms. Danenberg and her husband, Peter Danenberg.
(4) Includes 1,386,229 shares of common stock owned by her son, David M. Smith, as to which Mrs. Smith disclaims beneficial ownership.
(5) Includes 864,328 shares of common stock owned by her husband, Samuel Serruya, as to which Mrs. Serruya disclaims beneficial ownership and 3,939 shares of common stock her son, Michael Serruya, as to which Mrs. Serruya disclaims beneficial ownership.
(6) Includes 864,328 shares of common stock owned by his wife, Clara Serruya, as to which Mr. Serruya disclaims beneficial ownership and 3,939 shares of common stock owned by his son, Michael Serruya, as to which Mr. Serruya disclaims beneficial ownership.
(7) According to a Schedule 13G filed by AWM Investment Co. Austin W. Marxe and David M. Greenhouse have shared power to vote and dispose of or direct the disposition of 798,638 common shares. The principal address for AWM Investment Co. is 527 Madison Ave. #2600, New York, NY 10022.
(8) According to a Schedule 13G filed by WSV Management, LLC, WSV Management, LLC, WS Ventures Management. L.P., Reid S. Walker, G. Stacy Walker, and Patrick P. Walker have shared power to vote and dispose of or direct the disposition of 798,638 common shares. The principal address for WSV Management, LLC is 300 Crescent Court # 1100, Dallas, TX 75201.

Securities Authorized For Issuance Under Equity Compensation Plans

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders	1,160,190	$7.62	1,183,810
Equity compensation plans not approved by security holders	—	—	—
Total	1,160,190	$7.62	1,183,810

Item 12. Certain Relationships and Related Transactions, and Director Independence.

The following is a description of transactions that were entered into with our executive officers, directors or 5% stockholders during the prior fiscal year. We believe that all of the transactions described below were made on terms no less favorable to us than could have been obtained from unaffiliated third parties. All future related party transactions will be approved by our audit committee or a majority of our independent directors who do not have an interest in the transactions and who will have access, at our expense, to our or independent legal counsel.

Royalty Payment to the University of Southern California

While employed at USC, Kathleen Danenberg, our President, Chief Executive Officer and a director, developed and patented (RGI-1). USC retains ownership of this patent but has exclusively licensed this technology to us. In consideration for this license, we are obligated to pay as royalties to USC a percentage of the net sales of products or services using the technology, and to meet a certain minimum in royalty payments. Pursuant to USC policy, the inventors of technology owned by the University and then licensed for commercialization are paid a portion of royalties received by the University from the licensed technology. USC therefore pays a portion of royalties received from us to Ms. Danenberg in recognition of her invention. Amounts paid to Ms. Danenberg by USC amounted to $18,574 and $34,658 respectively, for the years ended December 31, 2006 and 2007, respectively.

Director Independence

Our board of directors has determined that the following directors are independent in accordance with the applicable requirements of the SEC and the NASDAQ Stock Market Inc.:

Hubertus Spierings
Gary Nusbaum

Committees of the Board of Directors

In order to fulfill its responsibilities, our board of directors has delegated certain authority to its committees. There are three standing committees. During 2007, our board held four meetings, one nominating and governance committee meeting and two audit committee meetings. Each of our directors attended at least 75% of the total number of meetings of the board of directors and the committees on which he served. We have utilized the phase-in provisions afforded to us by NASDAQ Marketplace Rule 4350(a)(5) and will be in compliance with the director and board committee independence requirements contained therein.

A brief description of each of the Board committees and their functions is described below. Additional information about the committees can be found in the committee charters, which are available on the Investor Relations section of our website at www.responsegenetics.com. Printed copies of these charters or the Code may be obtained without charge by writing to the Corporate Secretary.

Audit Committee

Our audit committee is composed of three members and is authorized to:

- assist the Board in monitoring the integrity of the financial statements of the Company and financial reporting procedures and the Company's compliance with legal and regulatory requirements;
- approve and retain the independent auditors to conduct the annual audit of our books and records and inform the Board of any significant accounting matters, including accounting policies;
- review management's accounting for the Company's financial results and reviews the timeliness and adequacy of the reporting of those results and related judgments;
- review the proposed scope and results of the audit;
- review and pre-approve the independent auditor's audit and non-audit services rendered;
- approve the audit fees to be paid;
- review accounting and financial controls with the independent auditors and our financial and accounting staff;
- review and approve transactions between us and our directors, officers and affiliates;
- recognize and prevent prohibited non-audit services;
- oversee internal audit functions and make inquiry into the audits of the Company's books made internally and by outside independent registered public accounting firm;
- review the performance of the Audit Committee;
- establish procedures for the receipt, retention and treatment of complaints relating to accounting, internal accounting controls, and for the confidential, anonymous submission by employees of concerns regarding accounting or auditing matters;
- review and report to the Board on the Company's management of its financial resources; and
- prepare the report of the audit committee that SEC rules require to be included in our annual meeting proxy statement.

Each of Mr. Spierings, Mr. Nusbaum and Mr. Serruya serves as a member of our audit committee. Mr. Serruya is not an independent director.

We engaged Singer Lewak Greenbaum and Goldstein LLP as our independent registered public accountants on June 9, 2006. Prior to this, we had not engaged an independent registered public accounting firm.

Compensation Committee

Our compensation committee is composed of three members and is authorized to:

- review and recommend the compensation arrangements for management, including the compensation for our president and chief executive officer;
- establish and review general compensation policies with the objective to attract and retain superior talent, to reward individual performance and to achieve our financial goals;
- administer our stock incentive plans; and
- prepare the report of the compensation committee that SEC rules require to be included in our annual meeting proxy statement.

Each of Mr. Spierings, Mr. Smith and Mr. Nusbaum serves as a member of our compensation committee. Mr. Smith is not an independent director.

Governance and Nominating Committee

Our nominating and governance committee is composed of three members and is authorized to:

- seek and identify individuals qualified to become Board members, and reviews and recommends possible candidates for Board membership, taking into account such criteria as independence, skills, diversity, occupation and experience in the context of the nees of the Board;
- review the structure of the Board, its committees and overall size;
- recommend for Board approval assignments of Board members to committees and selection of Board committee chairs;

- oversee the implementation of the Code of Business Conduct and Ethics and monitors compliance with the Code;
- determine a schedule for regular executive sessions of the Board in which non-management directors meet without management participation;
- develop and recommend to the Board corporate governance principles applicable to our company;
- oversee the process of succession planning for management;
- review and maintain oversight of matters relating to the independence of Board and committee members;
- review the performance of the nominating and governance committee; and
- oversee the annual performance evaluation of the board of directors and management.

Each of Mr. Spierings, Mr. Nusbaum and Dr. DeMeester serves as a member of our nominating and governance committee. Dr. DeMeester is not an independent director.

Item 13. Exhibits.

3.1*	Amended and Restated Certificate of Incorporation, as amended.
3.2*	Restated Bylaws of the Company.
4.1*	Warrant to purchase common stock issued to Maxim Group LLC and its designees.
4.2*	Form of Common Stock Certificate.
10.1*†	Master Agreement for the Supply of Laboratory Test Services by and between SmithKline Beecham Corporation (d.b.a. GlaxoSmithKline) and the Company, dated as of January 17, 2006.
10.2*†	Master Agreement for the Supply of Laboratory Services by and between GlaxoSmithKline Biologicals and the Company, dated as of December 1, 2006.
10.3*†	Services Agreement by and between Taiho Pharmaceutical Co., Ltd. And the Company, dated as of July 30, 2000.
10.4*†	License Agreement by and between Roche Molecular Systems, Inc. and the Company, dated as of November 23, 2004.
10.5*†	Patent License Agreement by and between Roche Molecular Systems Inc. and the Company, dated as of November 16, 2004.
10.6*†	Service Provider Agreement by and between Affymetrix, Inc. and the Company, dated as of September 29, 2006.
10.7*†	Option and License Agreement by and between the University of Southern California and the Company, as amended, dated as of April 19, 2000.
10.8*†	Agreement by and between Applied Biosystems and the Company, dated December 29, 2005.
10.9*#	Employment Agreement by and between James Clark and the Company, dated as of October 26, 2006.
10.10*#	Employment Agreement by and between Thomas Stankovich and the Company, dated as of October 25, 2006, as amended on May 29, 2007.
10.11*#	Employment Agreement by and between Kathleen Danenberg and the Company, dated as of October 26, 2006, as amended on December 14, 2006, and on May 29, 2007.
10.12*#	Employment Agreement by and between Denise McNairn and the Company, dated as of February 20, 2007, as amended on May 29, 2007.
10.13*#	Response Genetics, Inc. 2006 Employee, Director and Consultant Stock Plan.
10.14*	Office Lease by and between Health Research Association and the Company, dated effective as of January 25, 2005.
10.15*†	Collaboration Agreement by and between the Company and Shanghai Biochip Company, Ltd., dated as of March 5, 2007
10.16*	Lease Agreement by and between the Company and the University Court of the University of Edinburgh, dated as of March 15, 2007.
10.17*#	Executive Officer Form of Incentive Stock Option Agreement.
10.18*#	Executive Officer Form of Non-Qualified Stock Option Agreement.
10.19@†	Commission Agreement by and between Hitachi Chemical Co., LTD. and the Company, dated as of July 26, 2007.
10.20#	Director Compensation Policy.
14*	Code of Ethics.
21*	Subsidiaries of the Small Business Issuer.

31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 906

* Incorporated by reference to the Company's Registration Statement on Form SB-2 (File No. 333-139534).

@ Incorporated by reference to the Company's Quarterly Report on Form 10-QSB for the quarter ended September 30, 2007.

Identifies a management contract or compensatory plan or agreement in which an executive officer or director of the Company participates.

† Confidential treatment requested as to certain portions, which portions have been filed separately with the Securities and Exchange Commission.

Item 14. Principal Accountant Fees and Services.

Singer Lewak Greenbaum & Goldstein LLP ("SLGG") has audited our financial statements since 2005. Good Swartz Brown & Berns LLP ("GSBB") has provided us services for tax preparation, tax planning and consulting. Aggregate fees for professional services rendered for us by SLGG and GSBB were as follows:

Services Provided	2007
Audit & audit related	$ 300,025
Tax preparation, tax planning and consulting	81,365
Total	$ 381,390

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.

RESPONSE GENETICS, INC.

Date: March 31, 2008

By: /s/ Kathleen Danenberg

Kathleen Danenberg
President and Chief Executive Officer

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

Signatures		Title	Date
By:	/s/ Kathleen Danenberg Kathleen Danenberg	President and Chief Executive Officer (principal executive officer) and Director	March 31, 2008
By:	/s/ Thomas Stankovich Thomas Stankovich	Vice President and Chief Financial Officer (principal financial and accounting officer)	March 31, 2008
By:	/s/ Tom DeMeester, M.D. Tom DeMeester, M.D.	Chairman of the Board	March 31, 2008
By:	/s/ Hubertus Spierings Hubertus Spierings	Director	March 31, 2008
By:	/s/ Gary Nusbaum Gary Nusbaum	Director	March 31, 2008
By:	/s/ Michael Serruya Michael Serruya	Director	March 31, 2008
By:	/s/ David M. Smith David M. Smith	Director	March 31, 2008

FINANCIAL STATEMENTS

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders
Response Genetics, Inc.

We have audited the consolidated balance sheets of Response Genetics, Inc. and subsidiaries (the "Company") as of December 31, 2007 and 2006, and the related consolidated statements of operations, statement of stockholders' (deficit) equity and comprehensive loss and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2007 and 2006, and the results of their operations and their cash flows for each of the years then ended, in conformity with U.S. generally accepted accounting principles.

As discussed in Note 13 to the consolidated financial statements, the Company has adopted the provisions of Statement of Financial Accounting Standards Interpretation No. 48, "Accounting for Uncertainty in Income Taxes - an Interpretation of FASB Statement No. 109" on January 1, 2007.

As discussed in Note 2 to the consolidated financial statements, the Company has adopted the provisions of Statement of Financial Accounting Standards No. 123 (R), "Share-Based Payment" on January 1, 2006.

/S/Singer Lewak Greenbaum and Goldstein LLP

March 28, 2008
Singer Lewak Greenbaum and Goldstein LLP
Los Angeles, California

RESPONSE GENETICS, INC.

CONSOLIDATED BALANCE SHEETS

	As of December 31,	
	2006	2007
ASSETS		
Current assets		
Cash and cash equivalents	$ 4,930,123	$ 17,024,209
Accounts receivable	1,288,255	4,206,765
Prepaid expenses and other current assets	837,238	562,403
Total current assets	7,055,616	21,793,377
Property and equipment, net	1,184,963	2,593,303
Other assets	19,102	27,353
Total assets	$ 8,259,681	$ 24,414,033
LIABILITIES AND STOCKHOLDERS' (DEFICIT) EQUITY		
Current liabilities		
Accounts payable	$ 404,008	$ 234,705
Accrued expenses	547,119	305,517
Accrued royalties	123,852	264,551
Accrued payroll, bonus and related liabilities	595,276	521,123
Deferred revenue	1,628,325	7,191,514
Total current liabilities	3,298,580	8,517,410
Notes payable to stockholders	716,854	—
Accrued interest on notes payable to stockholders	329,036	—
Accrued dividends	6,097,579	—
Deferred revenue, net of current portion	3,320,000	790,848
Total liabilities	13,762,049	9,308,258
Commitments and contingencies		
Stockholders' (deficit) equity		
Series B Convertible Preferred Stock, $0.01 par value; 1,038,048 and 0 issued and outstanding (liquidation preference of $9 per share, or $9,342,432 plus accrued but unpaid dividends) at December 31, 2006 and December 31, 2007, respectively	10,380	—
Series A Junior Convertible Preferred Stock, $0.01 par value; 500,000 and 0 issued and outstanding (liquidation preference of $5 per share, or $2,500,000) at December 31, 2006 and December 31, 2007, respectively	5,000	—
Common stock, $0.01 par value; 20,000,000 and 50,000,000 shares authorized; 2,726,320 and 10,239,276 shares issued and outstanding at December 31, 2006 and December 31, 2007, respectively	27,263	102,393
Additional paid-in capital	9,722,273	35,356,569
Accumulated deficit	(15,267,284)	(20,320,191)
Accumulated other comprehensive loss	—	(32,996)
Total stockholders' (deficit) equity	(5,502,368)	15,105,775
Total liabilities and stockholders' (deficit) equity	$ 8,259,681	$ 24,414,033

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

RESPONSE GENETICS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,	
	2006	2007
Revenue	$ 6,017,025	$ 7,789,789
Operating expenses:		
Cost of revenue	2,456,071	4,045,715
General and administrative	3,933,660	6,786,890
Research and development	1,261,981	2,455,044
Total operating expenses	7,651,712	13,287,649
Operating (loss)	(1,634,687)	(5,497,860)
Other (expense):		
Interest expense	(57,537)	(28,669)
Interest income	138,598	517,645
Other	196,783	—
Loss before income taxes	(1,356,843)	(5,008,884)
Provision for income taxes	800	44,023
Net income (loss)	(1,357,643)	(5,052,907)
Preferred stock dividends	(934,244)	(412,625)
Net Loss attributable to common stockholders	$ (2,291,887)	$ (5,465,532)
Net Loss per share — basic	$ (0.84)	$ (0.78)
Net Loss per share — diluted	$ (0.84)	$ (0.78)
Weighted-average shares — basic	2,726,320	6,987,092
Weighted-average shares — diluted	2,726,320	6,987,092

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

RESPONSE GENETICS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,	
	2006	2007
Cash flows from operating activities:		
Net loss	$ (1,357,643)	$ (5,052,907)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	315,015	572,095
Share-based compensation	(17,115)	1,549,655
Gain on sale of property and equipment	(17,782)	—
Changes in operating assets and liabilities:		
Accounts receivable	(577,420)	(2,918,510)
Prepaid expenses and other current assets	(615,872)	(339,149)
Other assets	—	(8,251)
Accounts payable	292,715	(169,303)
Accrued expenses	470,618	(241,602)
Accrued royalties	63,476	140,699
Accrued payroll and related liabilities	578,041	(74,153)
Accrued interest on notes payable to stockholders	48,746	21,394
Deferred revenue	3,994,450	3,034,037
Net cash provided by (used in) operating activities	3,177,229	(3,485,995)
Cash flows from investing activities:		
Purchase of property and equipment	(912,987)	(1,980,435)
Proceeds from sale of property and equipment	32,267	—
Net cash used in investing activities	(880,720)	(1,980,435)
Cash flows from financing activities:		
Proceeds from issuance of common stock	—	21,000,000
Transaction costs relating to issuance of common stock	—	(3,406,488)
Net cash provided by financing activities	—	17,593,512
Effect of foreign exchange rates on cash and cash equivalents	—	(32,996)
Net increase in cash and cash equivalents	2,296,509	12,094,086
Cash and cash equivalents:		
Beginning of period	2,633,614	4,930,123
End of period	$ 4,930,123	$ 17,024,209
Cash paid during the period for:		
Income taxes	$ 800	$ 16,754
Interest	$ 8,770	$ —

Supplemental non-cash financing activities

The following non-cash transactions occurred in connection with the Company's June 8, 2007 initial public offering:

- Notes payable of $716,854 and $350,430 of accrued interest were converted to an aggregate of 152,489 shares of common stock
- $6,510,204 of accrued but unpaid dividends on Series B Preferred Stock automatically converted into 1,760,467 shares of common stock
- $613,984 of transaction costs recorded in prepaid expenses at December 31, 2006 were reclassified as a reduction in the proceeds of the initial public offering
- The Company issued 100,000 warrants to purchase 100,000 shares of its common stock, for proceeds of $100, to the underwriters. The $329,000 fair value of the warrants was recorded as a reduction in the proceeds of the initial public offering

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

RESPONSE GENETICS, INC.

Consolidated Statement of Stockholders' (Deficit) Equity and Comprehensive Loss

	Series B Convertible Preferred Stock		Series A Convertible Preferred Stock		Common Stock						
	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Additional Paid-in Capital	Deferred Compensation	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' (Deficit) Equity
Balances at December 31, 2005	1,038,048	$ 10,380	500,000	$ 5,000	2,726,320	$ 27,263	$10,689,376	$ (15,744)	$ (13,909,641)	$ —	$ (3,193,366)
Accrued dividends on Series B Convertible Preferred Stock	—	—	—	—	—	—	(934,244)	—	—	—	(934,244)
Write-off of deferred stock-based compensation	—	—	—	—	—	—	(15,744)	15,744	—	—	—
Adjustment to stock based compensation expense for options subject to variable accounting	—	—	—	—	—	—	(17,115)	—	—	—	(17,115)
Net loss and comprehensive loss	—	—	—	—	—	—	—	—	(1,357,643)	—	(1,357,643)
Balance at December 31, 2006	1,038,048	$ 10,380	500,000	$ 5,000	2,726,320	$ 27,263	$ 9,722,273	—	$ (15,267,284)	$ —	$ (5,502,368)
Accrued dividends on Series B Convertible Preferred Stock	—	—	—	—	—	—	(412,625)	—	—	—	(412,625)
Conversion of Series A and Series B Preferred Stock, as further discussed in Note 10	(1,038,048)	(10,380)	(500,000)	(5,000)	4,360,467	43,605	6,481,979	—	—	—	6,510,204
Conversion of Notes Payable to Stockholders, as further discussed in Note 10	—	—	—	—	152,489	1,525	1,065,759	—	—	—	1,067,284
Issuance of common stock in connection with initial public offering, net of $4,020,472 of transaction costs, including warrants to purchase 100,000 shares of common stock, as further discussed in Note 10	—	—	—	—	3,000,000	30,000	16,949,528	—	—	—	16,979,528
Adjustment to stock-based compensation expense for options subject to variable accounting	—	—	—	—	—	—	(82,606)	—	—	—	(82,606)
Share-based compensation expense related to issuance of employee stock options	—	—	—	—	—	—	1,632,261	—	—	—	1,632,261
Unrealized loss on foreign currency translation	—	—	—	—	—	—	—	—	—	(32,996)	(32,996)
Net loss	—	—	—	—	—	—	—	—	(5,052,907)	—	(5,052,907)
Comprehensive loss	—	—	—	—	—	—	—	—	—	—	(5,085,903)
Balances at December 31, 2007	—	$ —	—	$ —	10,239,276	$ 102,393	$35,356,569	—	$ (20,320,191)	$ (32,996)	$ 15,105,775

1. Organization, Operations and Basis of Accounting

Response Genetics, Inc. (the "Company") was incorporated in the state of Delaware on September 23, 1999 as Bio Type, Inc. for the purpose of providing unique molecular profiling services of tumor tissue that has been formalin-fixed and embedded in paraffin wax. In August 2000, the Company changed its name to Response Genetics, Inc.

The Company is a life science company engaged in the research, development, marketing and sale of pharmacogenomic tests for use in the treatment of cancer. Pharmacogenomics is the science of how an individual's genetic makeup relates to drug response. Tests based on pharmacogenomics facilitate the prediction of a response to drug therapy or survival following surgery based on an individual's genetic makeup. In order to generate pharmacogenomic information from patient specimens for these tests, the Company developed and patented enabling methods for maximizing the extraction and analysis of nucleic acids and, therefore, accessing the genetic information available from each patient sample. The Company's platforms include analysis of single biomarkers using the polymerase chain reaction method as well as global gene interrogation using microarray methods from paraffin or frozen tissue specimens. The Company primarily derives its revenue by providing pharmacogenomic testing services to pharmaceutical companies in the United States, Asia and Europe.

2. Summary of Significant Accounting Policies

Basis of Consolidation

The consolidated financial statements include the accounts of Response Genetics, Inc. and its wholly owned subsidiary, Response Genetics, Ltd., a Scottish corporation, which was incorporated in October 2006. All significant intercompany transactions and balances have been eliminated in consolidation.

Cash and Cash Equivalents

The Company considers all highly liquid investments with a maturity at date of purchase of three months or less to be cash equivalents. The carrying value of cash equivalents approximates fair value due to the short-term nature and liquidity of these instruments. The Company's cash equivalents are comprised of cash on hand, deposits in banks and money market investments.

Accounts Receivable

The Company invoices its clients as specimens are processed and any other contractual obligations are met. The Company's contracts with clients typically require payment within 45 days of the date of invoice. The Company maintains allowances for doubtful accounts for estimated losses resulting from the inability of its clients to make required payments. The Company specifically analyzes accounts receivable and historical bad debts, client credit, current economic trends and changes in client payment trends when evaluating the adequacy of the allowance for doubtful accounts. Account balances are charged-off against the allowance when it is probable the receivable will not be recovered. To date, the Company's clients have primarily been large pharmaceutical companies. As a result, bad debts to date have been minimal. There were no allowances for doubtful accounts recorded at December 31, 2006 and 2007.

Supply Inventories

The Company purchases reagents, analyte specific reagents, and other supplies to conduct various laboratory tests on an as needed basis with turnover typically within 30 days of purchase. The Company's primary product is data generated from its pharmacogenomic testing services. Hence, the Company does not record either product or supply inventories as part of its financial statements as these are considered immaterial to the Company's financial position and results of operations.

Property and Equipment

Property and equipment are carried at cost less accumulated depreciation and amortization. Depreciation and amortization are calculated using the double declining balance method over the estimated useful lives of the assets. The Company has determined the estimated useful lives of its property and equipment, as follows:

Laboratory equipment	5 to 7 years
Furniture and Equipment	5 to 7 years
Leasehold Improvements	Shorter of the useful life or the lease term (5 to 7 years)

Maintenance and repairs are charged to expense as incurred. The cost and accumulated depreciation of assets sold or otherwise disposed of are removed from the related accounts and the resulting gain or loss is reflected in the statements of operations.

2. Summary of Significant Accounting Policies - (continued)

Revenue Recognition

Revenues are derived from pharmacogenomic testing services provided to pharmaceutical companies and are recognized on a contract specific basis pursuant to the terms of the related agreements. Revenue is recognized in accordance with SEC Staff Accounting Bulletin No. 104, *Revenue Recognition,* which requires that four basic criteria must be met before revenue can be recognized: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred and title and the risks and rewards of ownership have been transferred to the client or services have been rendered; (3) the price is fixed or determinable; and (4) collectibility is reasonably assured.

Revenues are recorded on an accrual basis as the contractual obligations are completed and as a set of assays is processed through the Company's laboratory under a specified contractual protocol. Certain contracts have minimum assay requirements that, if not met, result in payments that are due upon the completion of the designated period. In these cases, revenues are recognized when the end of the specified contract period is reached.

On occasion, the Company may enter into a contract that requires the client to provide an advance payment for specimens that will be processed at a later date. In these cases, the Company records this advance as deferred revenue and recognizes the revenue as the specimens are processed or at the end of the contract period, as appropriate.

Cost of Revenue

Cost of revenue represents the cost of materials, direct labor, costs associated with processing tissue specimens including pathological review, staining, microdissection, paraffin extraction, reverse transcription polymerase chain reaction, or ("RT-PCR") and quality control analyses, license fees and delivery charges necessary to render an individualized test result. Costs associated with performing tests are recorded as the tests are processed.

Other Income

During the year ended December 31, 2006, the Company entered into an agreement with a client to provide certain testing services. In order to perform such testing services within the timeframe required by the client, which was by no later than June 30, 2006, the Company was required to purchase additional laboratory equipment totaling $179,000 which was reimbursed by the client pursuant to the terms of the agreement. This equipment was used to perform the services pursuant to this agreement and will continue to be used by the Company in its on-going operations over the useful life of the equipment which is estimated to be five years. Upon the purchase of the equipment, the Company recorded the $179,000 reimbursement of the equipment purchase, which is non-recurring in nature, as other non-operating income during the year ended December 31, 2006.

Patent License Fees

The Company has licensed technology for the extraction of mRNA from formalin-fixed, paraffin-embedded tumor specimens from the University of Southern California ("USC"). Under the terms of the license agreement, the Company is required to pay royalties to USC based on the revenue generated by use of this technology. The Company maintains a non-exclusive license to use the polymerase chain reaction ("PCR"), homogenous PCR, and reverse transcription PCR processes of Roche Molecular Systems, Inc. ("Roche"). The Company pays Roche Molecular Systems a royalty fee based on revenue that the Company generates through use of this technology. The Company accrues for such royalties at the time revenue is recognized. Such royalties are included in cost of revenue in the accompanying statements of operations.

Research and Development

The Company expenses costs associated with research and development activities as incurred. Research and development costs are allocated on a pro rata basis using the number of research-only specimens that are processed by the Company versus specimens that are processed and paid for by various third parties via contract. Research and development costs include employee costs (salaries, payroll taxes, benefits, and travel), equipment depreciation and warranties and maintenance, laboratory supplies, primers and probes, reagents, patent costs and occupancy costs.

Income Taxes

Deferred tax assets and liabilities are determined based on differences between the financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized.

The Company adopted the Financial Accounting Standards Board's Interpretation No. 48, "Accounting for Uncertainty in Income Taxes, an interpretation of FASB Statement No. 109" ("FIN 48") effective January 1, 2007. FIN 48 clarifies the accounting for uncertainty in income taxes recognized in financial statements and requires the impact of a tax position to be recognized in the financial statements if that position is more likely than not of being sustained by the taxing authority. At the date of adoption, and as of December 31, 2007, the Company does not have a liability for unrecognized tax benefits.

2. Summary of Significant Accounting Policies - (continued)

Stock-Based Compensation

The Company accounts for stock-based compensation under the guidance of Statement of Financial Accounting Standards No. 123(R), "Share-Based Payments," ("SFAS 123(R)") which requires the measurement and recognition of compensation expense for all share-based payment awards based on estimated fair values.

Under the modified prospective method of SFAS No. 123(R), compensation expense was recognized during the years ended December 31, 2007 and 2006 and includes compensation expense for all stock-based payments granted prior to, but not yet vested as of January 1, 2006, based on the grant date fair value estimated in accordance with the original provisions of SFAS No. 123 and compensation expense for all stock based payments granted after January 1, 2006, based on the grant date fair value estimated in accordance with the provisions of SFAS No. 123(R). The Company's financial results for the prior periods have not been restated. Stock-based compensation expense recognized under SFAS 123(R) was $15,383 and $1,549,655 for the years ended December 31, 2006 and 2007, respectively. The Company accounts for equity instruments issued to non-employees in accordance with the provisions of Emerging Issues Task Force No. 96-18, *Accounting for Equity Instruments that are Issued to Other than Employees for Acquiring, or in Conjunction with Selling, Goods or Services* ("EITF 96-18"). Under EITF 96-18, stock option awards issued to non-employees are accounted for at fair value using the Black-Scholes option-pricing model.

Management Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Management has identified revenue, the fair value of its preferred and common stock and the assessment of the realizability of deferred income tax assets as areas where significant estimates and assumptions have been made in preparing the financial statements.

Long-lived Assets

Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. The Company evaluates potential impairment by comparing the carrying amount of the asset with the estimated undiscounted future cash flows associated with the use of the asset and its eventual disposition. Should the review indicate that the asset is not recoverable, the Company's carrying value of the asset would be reduced to its estimated fair value, which is measured by future discounted cash flows.

Foreign Currency Translation

The financial position and results of operations of the Company's foreign operations are determined using local currency as the functional currency. Assets and liabilities of these operations are translated at the exchange rate in effect at each period-end. Statement of operations amounts are translated at the average rate of exchange prevailing during the period. Translation adjustments arising from the use of differing exchange rates from period to period are included in accumulated other comprehensive loss in stockholders' equity.

Comprehensive Income (Loss)

Comprehensive income (loss) encompasses the change in equity from transactions and other events and circumstances from non-owner sources and the Company's net income (loss). There was no difference between comprehensive loss and net loss for the year ended December 31, 2006. Accumulated other comprehensive loss is comprised of foreign currency translation adjustments for the year ended December 31, 2007.

Fair Value of Financial Instruments

The carrying amounts of the Company's financial instruments, which include cash, cash equivalents, accounts receivable, accounts payable, and accrued expenses, approximate fair value due to the short term nature of these financial instruments. The carrying value of the notes payable to stockholders is considered to approximate fair value as the interest rates and other related terms of the notes approximate market rates.

2. Summary of Significant Accounting Policies - (continued)

Concentration of Credit Risk and Clients and Limited Suppliers

Cash and cash equivalents consist of financial instruments that potentially subject the Company to concentrations of credit risk to the extent recorded on the balance sheets. The Company maintains cash in United States financial institutions in excess of Federal Deposit Insurance Corporation limitations. In addition, the Company has invested its excess cash in money market instruments which are not insured under the Federal Deposit Insurance Corporation. The Company has not incurred any losses on these cash balances as of December 31, 2007. At December 31, 2006 and 2007, the Company had cash on deposit that was in excess of the federally insured limit of $100,000. At December 31, 2007, approximately $512,000 of cash was held outside of the United States.

Clients that account for greater than 10 percent of revenue or accounts receivable are provided below.

	Year Ended December 31,			
	2006		2007	
	Revenue	Percent of Total Revenue	Revenue	Percent of Total Revenue
Taiho Pharmaceutical	$ 2,745,125	46%	$ 2,864,425	37%
GlaxoSmithKline	$ 2,374,800	39%	$ 2,818,288	36%
GlaxoSmithKline Biologicals	$ —	—%	$ 938,701	12%

	As of December 31			
	2006		2007	
	Receivable Balance	Percent of Total Receivables	Receivable Balance	Percent of Total Receivables
Taiho Pharmaceutical	$ 416,300	33%	$ 396,100	9%
GlaxoSmithKline	$ 584,000	47%	$ 567,139	14%
GlaxoSmithKline Biologicals	$ —	—	$ 3,059,597	73%

Many of the supplies and reagents used in the Company's testing process are procured by a limited number of suppliers. Any supply interruption or an increase in demand beyond the suppliers' capabilities could have an adverse impact on the Company's business. Management believes it can identify alternative sources, if necessary, but it is possible such sources may not be identified in sufficient time to avoid an adverse impact on its business. Refer also to Notes 8 and 9 for further discussion regarding these supply agreements.

2. Summary of Significant Accounting Policies - (continued)

Recent Accounting Pronouncements

On July 13, 2006, the FASB issued FASB Interpretation No. 48 ("FIN 48"), which interprets SFAS No. 109, "Accounting for Income Taxes." FIN 48 clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with FASB Statement No. 109, Accounting for Income Taxes. FIN 48 also prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return that results in a tax benefit. Additionally, FIN 48 provides guidance on de-recognition, income statement classification of interest and penalties, accounting in interim periods, disclosure, and transition. This interpretation is effective for fiscal years beginning after December 15, 2006. The adoption of FIN 48 did not have a material impact on the Company's financial position, results of operations or cash flows.

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements*. SFAS No. 157 establishes a framework for measuring fair value in generally accepted accounting principles, and expands disclosures about fair value measurements. The standard applies whenever other standards require (or permit) assets or liabilities to be measured at fair value. The standard does not expand the use of fair value in any new circumstances. SFAS No. 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007, and interim periods within those fiscal years. Earlier application is encouraged. The Company does not believe that the adoption of SFAS No. 157 will have a material impact on its financial position, results of operations or cash flows.

In February 2007, the FASB issued SFAS No. 159, "The Fair Value Option for Financial Assets and Financial Liabilities — Including an amendment of FASB Statement No. 115. SFAS 159 permits companies to choose to measure certain financial instruments and other items at fair value. SFAS 159 also establishes presentation and disclosure requirements designed to facilitate comparison between entities that choose different measurement attributes for similar types of assets and liabilities. The standard is effective for fiscal years beginning after November 15, 2007. The Company does not believe the adoption of SFAS 159 will have a material impact on its consolidated financial statements.

In December 2007, FASB issued SFAS No. 141(R), "Business Combinations", an amendment of SFAS No. 141, which improves the relevance, representational faithfulness, and comparability of the information that a reporting entity provides in its financial reports about a business combination and its effects. SFAS 141(R) applies for all business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. We do not expect adoption of SFAS 141(R) to have a material impact on the Company's financial statements.

In December 2007, FASB issued SFAS No. 160, "Noncontrolling Interests in Consolidated Financial Statements - an amendment of Accounting Research Bulletin No. 51," which amends ARB 51 to establish accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary. SFAS 160 is effective for fiscal years beginning on or after December 15, 2008. We do not expect adoption of SFAS 160 to have a material impact on the Company's financial statements.

In March 2008, FASB issued SFAS No. 161, "Disclosures about Derivative Instruments and Hedging Activities—an amendment of FASB Statement No. 133" which establishes the disclosure requirements for derivative instruments and for hedging activities. This Statement amends and expands the disclosure requirements of Statement 133 with the intent to provide users of financial statements with an enhanced understanding of derivative instruments and hedging activities. SFAS 61 is effective for financial statements issued for fiscal years and interim periods beginning after November 15, 2008, with early adoption encouraged. We do not expect adoption of SFAS 160 to have a material impact on the Company's financial statements.

3. Property and Equipment

Property and equipment consists of the following:

	December 31, 2006	December 31, 2007
Laboratory equipment	$ 2,110,113	$ 3,657,668
Furniture and equipment	391,239	801,273
Leasehold improvements	118,603	141,135
Total	2,619,955	4,600,076
Less: Accumulated depreciation and amortization	(1,434,992)	(2,006,773)
Total property and equipment, net	$ 1,184,963	$ 2,593,303

Depreciation expense for the years ended December 31, 2006 and 2007 was $315,015 and $572,095 respectively.

4. Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consists of the following:

	December 31, 2006	December 31, 2007
Direct costs associated with initial public offering	$ 613,984	$ —
Prepaid insurance	28,173	128,766
Prepaid maintenance contracts	106,029	237,277
Other	89,052	196,360
	$ 837,238	$ 562,403

On December 14, 2006, the Board of Directors approved the filing of a registration statement on Form SB-2 for the initial registration of the Company's common stock. Accordingly, at December 31, 2006, the Company deferred certain direct and incremental costs related to this planned initial public offering. These costs were charged against the gross proceeds upon the completion of such offering on June 8, 2007.

5. Accrued Expenses

Accrued expenses consists of the following:

	December 31, 2006	December 31, 2007
Accrued direct costs associated with initial public offering	$ 300,723	$ —
Accrued other	246,396	305,517
	$ 547,119	$ 305,517

6. Notes Payable to Stockholders

On March 28, 2000, the Company issued notes payable in an aggregate principal amount of $716,854 to holders of the Company's Series A Junior Convertible Preferred Stock. These notes payable accrued interest on the unpaid principal balances at the rate of 6.8% per annum, and under the original terms were payable on December 31, 2006. As of December 31, 2006, no principal or interest payments had been made. Total aggregate principal and accrued interest amounted to $1,045,890 at December 31, 2006.

On October 24, 2006, the Board of Directors of the Company approved an amendment to the terms of the notes payable to stockholders such that all outstanding notes payable to stockholders, plus accrued interest, would be automatically converted into shares of the Company's common stock at a per share price equal to the initial public offering price. The Company completed its initial public offering on June 8, 2007 and the aggregate principal amount of notes payable of $716,854 and $350,430 of accrued interest were converted to an aggregate of 152,489 shares of the Company's common stock based on a conversion price of $7.00, the initial public offering price.

7. Loss Per Share

The Company calculates net loss per share in accordance with SFAS No. 128, *Earnings Per Share* ("SFAS No. 128"). Under the provisions of SFAS No. 128, basic net loss per share is computed by dividing the net loss attributable to common stockholders for the period by the weighted average number of shares of common stock outstanding for the period. Diluted net loss per share attributable to common stockholders is computed by dividing the net loss attributable to common stockholders by the weighted average number of shares of common stock and dilutive common stock equivalents then outstanding. Common stock equivalents consist of shares of common stock issuable upon the conversion of convertible preferred stock and upon the exercise of stock options.

The following table sets forth the computation for basic and diluted loss per share:

	Year Ended December 31,	
	2006	2007
Numerator:		
Net loss	$ (1,357,643)	$ (5,052,907)
Series B convertible preferred stock dividends	(934,244)	(412,625)
Numerator for basic earnings per share - income (loss) available to common stockholders	(2,291,887)	(5,465,532)
Effect of dilutive securities:		
Series B convertible preferred stock dividends	—	—
Numerator for diluted earnings per share — income (loss) available to common stockholders	$ (2,291,887)	$ (5,465,532)
Denominator:		
Denominator for basic earnings per share — weighted-average shares	2,726,320	6,987,092
Effect of dilutive securities:		
Series A Junior Convertible preferred stock	—	—
Series B Convertible preferred stock	—	—
Dilutive potential common shares	—	—
Denominator for diluted earnings per share — adjusted weighted-average shares and assumed conversions	2,726,320	6,987,092
Basic Loss per share	$ (0.84)	$ (0.78)
Diluted Loss per share	$ (0.84)	$ (0.78)

Outstanding stock options and warrants to purchase 216,000 shares and 1,260,190 shares for the years ended December 31, 2006, and 2007, respectively, were excluded from the calculation of diluted loss per share as their effect would have been antidilutive. The assumed conversion of the Series A Junior Convertible Preferred Stock and the Series B Convertible Preferred Stock were excluded from the calculation of diluted loss per share for the year ended December 31, 2006 as their effect would have been antidilutive.

8. Commitments and Contingencies

Operating Leases

The Company leases office and laboratory space under a noncancelable operating lease that expires on January 31, 2010. The lease contains two two-year options to extend the term of the lease and contains annual scheduled rate increases tied to the Consumer Price Index for the Los Angeles/Long Beach California metropolitan area. In March 2007, the Company entered into a noncancelable operating lease, which expires in March 2010, for office and laboratory space in Scotland. Rent expense was $270,564 and $587,669 for the years ended December 31, 2006 and 2007, respectively.

Future minimum lease payments by year and in the aggregate, under the Company's noncancelable operating leases, consist of the following at December 31, 2007:

Year Ending December 31,		
2008	$	660,106
2009		677,730
2010		197,703
Total	$	1,535,539

Employment Agreements

The Company has employment contracts with several individuals, which provide for annual base salaries and potential bonuses. These contracts contain certain change of control, termination and severance clauses that require the Company to make payments to certain of these employees if certain events occur as defined in their respective contracts. Below are summaries of these agreements.

The Danenberg Employment Agreement

We entered into an employment agreement with Ms. Danenberg on December 11, 2000. This previous agreement was superceded by a new employment agreement, which we entered into as of October 26, 2006, as amended on December 14, 2006 and on May 29, 2007, for the position of President and Chief Executive Officer. The agreement has an initial term of three years, with automatic one-year renewal terms thereafter. Ms. Danenberg is to receive an initial base salary of $350,000 per year, subject to annual adjustments at the discretion of the Board. Ms. Danenberg also is eligible to earn a minimum of 40% of her base salary as an annual bonus based upon our meeting certain performance targets and her meeting personal objectives as determined by our board of directors.

We granted Ms. Danenberg non-qualified stock option under the 2006 Stock Plan, in an amount equal to 3% of the number of shares of our common stock outstanding on October 26, 2006 on a fully diluted basis or 212,577 options at an exercise price equal to $7.00, which was the initial public offering price of our common stock (the "IPO Price"). One third of these options will vest immediately upon the issuance of the options and the remainder shall vest in two equal installments on the first and second anniversary of the date of Ms. Danenberg's employment agreement (October 26, 2006). The options will vest immediately upon a change in control. Ms. Danenberg will be eligible for future option grants as approved by our board of directors. We will provide Ms. Danenberg with a monthly allowance of $1,000 to cover miscellaneous business expenses and a $1,000 monthly automobile allowance. We agreed to cover up to $5,000 of Ms. Danenberg's legal fees incurred in the negotiation of her employment agreement and up to $1,000 of Ms. Danenberg's legal fees incurred in the negotiation of the amendment to her employment agreement.

In the event that Ms. Danenberg's employment is terminated without cause or for good reason, as defined under the agreement, we are obligated to pay her severance equivalent to the greater of (a) one full year of base pay and benefits; or (b) the base pay and benefits for the remaining term of the employment agreement. In addition, within forty-five days of her termination, we are obligated to pay her the pro rata portion of the bonus earned as of her termination date. In addition the portion of Ms. Danenberg's options that are vested as of the date of her termination shall be exercisable for one year from the date of her termination. In the event the employment agreement is terminated because of Ms. Danenberg's death, or because of a disability as defined in the employment agreement, Ms. Danenberg or her estate will be entitled to receive her base pay and pro rata bonus earned as of the date of death or disability, and we will provide benefits coverage for a period of 12 months following the date of such death or disability to Ms. Danenberg or her heirs as the case may be.

In the event a change in control occurs during Ms. Danenberg's employment, she has agreed not to resign her employment voluntarily for a period of six months following the effective date of the change in control. If she is terminated within such six-month period without cause or she resigns for good reason, in addition to any other benefits to which she is entitled and provided she executes a release of claims, Ms. Danenberg will be entitled to a lump sum payment equivalent to a month of base pay at her then current annual rate for each month during such six-month period for which she has yet to complete service to us at the time of such termination, within forty-five days following such termination. The employment agreement also places certain confidentiality, assignment of inventions and non-solicitation obligations on Ms. Danenberg.

The Stankovich Employment Agreement

We have entered into an Employment Agreement with Thomas Stankovich, dated as of October 25, 2006, as amended on May 29, 2007 for the position of Vice President and Chief Financial Officer. He commenced employment on November 27, 2006. The agreement has an initial term of three years with automatic one-year renewal terms thereafter. The agreement provides for Mr. Stankovich to receive an initial base salary of $220,000 per year. Mr. Stankovich also is eligible to earn an annual bonus based upon our meeting certain performance targets and his meeting personal objectives as agreed upon with the CEO and approved by our board of directors.

We granted Mr. Stankovich a non-qualified stock option under the 2006 Stock Plan, in an amount equal to 1% of the number of shares of our common stock outstanding on November 27, 2006, on a fully diluted basis, or 70,976 options, at an exercise price equal to the IPO Price. The shares vest in equal annual amounts over a four-year period, beginning on the first anniversary of the initial grant date. The options will vest immediately upon a change in control. Mr. Stankovich will be eligible for additional option grants as approved by our board of directors. In the event that a change in control occurs within the first year of Mr. Stankovich's employment, and regardless of whether he is terminated, we are obligated to give him a cash payment equal to six months salary at his base salary rate at the time of change in control, as defined in the employment agreement. In the event that a change in control occurs within the second or third years of his employment, regardless of whether he is terminated, we are obligated to give him a cash payment equal to nine months salary at his base salary rate at the time of the change in control. In the event that Mr. Stankovich's employment is terminated without cause or he resigns for good reason as defined under the agreement, during the first year of his employment, we are obligated to pay him severance equal to six months salary at his base salary rate at the time of termination. In the event that Mr. Stankovich's employment is terminated without cause or he resigns for good reason within the second or third years of his employment, we are obligated to pay him severance equal to nine months salary at his base salary rate at the time of termination. In the event of Mr. Stankovich's termination without cause, the portion of the his options that are vested as of the date of his termination shall be exercisable for one year from the date of his termination. The employment agreement also places certain confidentiality, assignment of inventions and non-solicitation obligations on Mr. Stankovich.

The Clark Employment Agreement

We have entered into an Employment Agreement with James Clark, dated as of October 26, 2006, for the position of Vice President and Chief Operating Officer. The agreement provides for Dr. Clark to receive an initial base salary of £120,000 (approximately $230,000) per year. Dr. Clark also is eligible to earn an annual bonus based upon our meeting certain performance targets and his meeting personal objectives as agreed upon with the CEO and approved by our board of directors. Dr. Clark is eligible to participate in our employee benefit plans and we are required to reimburse him for reasonable business-travel expenses.

Should either Dr. Clark or we give the other notice of the intention to terminate Dr. Clark's employment, we may elect to terminate his employment immediately and we will be obligated, upon so electing, to pay to Dr. Clark a sum equal to his base salary exclusive of any contractual bonus or benefit in kind for the unexpired portion of the contractual notice entitlement. This obligation ceases if Dr. Clark commences alternate employment within the entitled notice period.

We granted Dr. Clark a non-qualified stock option under the 2006 Stock Plan, in an amount equal to 1% of the number of shares of our common stock outstanding on November 1, 2006 on a fully diluted basis or 70,859 options, at an exercise price equal to the IPO Price. The shares vest in equal annual amounts over a four-year period, beginning on the first anniversary of the initial grant date. The options will vest immediately upon a change in control. Dr. Clark will be eligible for additional option grants as approved by our board of directors. In the event of Dr. Clark's termination without cause or for good reason, the portion of his options that are vested as of the date of his termination shall be exercisable for one year from the date of his termination. The employment agreement with Dr. Clark contains confidentiality, non-competition and non-solicitation provisions.

The McNairn Employment Agreement

We have entered into an Employment Agreement with Denise McNairn, dated as of February 20, 2007, as amended on May 29, 2007 for the position of Vice President and General Counsel. The agreement has an initial term of three years with automatic one-year renewal terms thereafter. The agreement provides for Ms. McNairn to receive an initial base salary of $225,000 per year. Ms. McNairn also is eligible to earn an annual bonus of up to 35% of her base salary based upon our meeting certain performance targets and her meeting personal objectives as agreed upon with the CEO and approved by our board of directors. Ms. McNairn is eligible to participate in our employee benefit plans.

We granted Ms. McNairn a non-qualified stock option under the 2006 Stock Plan, in an amount equal to 1% of the number of shares of our common stock outstanding on February 20, 2007 on a fully diluted basis, or 71,278 options, at an exercise price equal to the IPO Price. The shares vest in equal annual amounts over a four-year period, beginning on the first anniversary of the initial grant date. The options will vest immediately upon a change in control. Ms. McNairn will be eligible for additional option grants as approved by our board of directors.

In the event that a change in control occurs within the first year of Ms. McNairn's employment, and regardless of whether she is terminated, we are obligated to make cash payments to her equal to six months salary at her base salary rate at the time of change in control, as defined in the employment agreement. In the event that a change in control occurs within the second or third years of her employment, regardless of whether she is terminated, we are obligated to make cash payments equal to nine months salary at her base salary rate at the time of the change in control. In the event that Ms. McNairn's employment is terminated without cause or she resigns for good reason, as defined under the agreement, during the first year of her employment we are obligated to pay her severance equal to six months salary at her base salary rate at the time of termination. In the event that Ms. McNairn's employment is terminated without cause or she resigns for good reason within the second or third years of her employment, we are obligated to pay her severance equal to nine months salary at her base salary rate at the time of termination. In the event of Ms. McNairn's termination without cause, the portion of her options that are vested as of the date of her termination shall be exercisable for one year from the date of her termination. The employment agreement also places certain confidentiality, assignment of inventions and non-solicitation obligations on Ms. McNairn.

Agreements with Suppliers

The Company purchases certain supplies from Applied Biosystems, and Affymetrix Inc. Purchases from these companies accounted for approximately 86% of the Company's reagent purchases in the years ended December 31, 2006 and 2007. The Company purchased from Applied Biosystems primers, probes and disposable supplies.

Under the supply agreement with Affymetrix, the Company pays an annual subscription fee and has access at predetermined prices to various probes, arrays, software and reagents necessary to support the Company's work.

9. License and Collaborative Agreements

License Agreement with the University of Southern California ("USC")

In April 2000, as amended in June 2002 and April 2005, the Company entered into a license agreement with USC. Under this agreement, USC granted the Company a worldwide, exclusive license with the right to sublicense, the patents for RGI-1 and related technology, for use in human and veterinary diagnostic laboratory services, the sale of clinical diagnostic products, and the sale of research products to the research community. USC retains the right under the agreement to use the technology for research and educational purposes.

In consideration for this license, the Company agreed to pay to USC royalties based on a percentage of the revenues generated by the use of RGI-1 and related technology. Royalty expense relating to this agreement amounted to $160,674 and $152,502 for the years ended December 31, 2006 and 2007, respectively. Such expense is included in cost of revenue in the accompanying statements of operations.

License Agreement with Roche Molecular Systems ("Roche")

In July 2001, the Company entered into a diagnostic services agreement with Roche to provide the Company with access to Roche's patented PCR technology. In November 2004, this agreement was replaced by a non-exclusive license to use Roche's PCR, homogenous PCR, and reverse transcription PCR processes. In consideration for these rights, the Company is obligated to pay royalties to Roche, based on a percentage of net sales of products or services that make use of the PCR technology. Royalty expense relating to this agreement amounted to $221,861 and $219,721 for the years ended December 31, 2006 and 2007, respectively. Such expense is included in cost of revenue in the accompanying statements of operations.

In November 2004, the Company entered into an agreement with Roche, pursuant to which the Company is collaborating with Roche to produce commercially viable assays used in the validation of genetic markers for pharmaceutical companies. Specifically, the Company has licensed the rights to Roche to use the pre-diagnostic assays the Company develops in the course of using its RNA-extraction technologies to provide testing services to pharmaceutical companies and to produce diagnostic kits that then can be sold commercially to those pharmaceutical companies. Roche is required to pay the Company royalties of a certain percentage of net sales of such diagnostic kits sold to pharmaceutical companies. Through December 31, 2007, Roche has not been required to pay any royalties to the Company pursuant to this agreement.

Services Agreement with Taiho Pharmaceutical Co., Ltd. ("Taiho")

In July of 2001, the Company entered into an agreement with Taiho pursuant to which it will provide Taiho with molecular-based tumor analyses for use in guiding chemotherapy treatment for cancer patients using the RGI-1 and for use in its business developing and marketing pharmaceutical and diagnostic products for use against cancer. Pursuant to the agreement, the Company appointed Taiho as the exclusive purchaser in Japan of tests and testing services based upon the RGI-1 using gene expression for (i) any one or the combination of specified molecular markers, (ii) the therapeutic use of specified compounds, or (iii) the diagnosis or therapeutic treatment of specified precancerous and cancerous diseases. The Company also granted Taiho the right to be a non-exclusive purchaser in Japan of tests and testing services based upon the RGI-1 using gene expression, other than those for which Taiho has exclusivity, for, (i) any one or combination of molecular markers, (ii) the therapeutic use of any compound or biological product against cancer, or (iii) the diagnosis or therapeutic treatment of precancerous and cancerous diseases.

In consideration for the testing services provided, Taiho paid an upfront payment at the commencement of the agreement and is obligated to pay regular testing fees, covering the specific services performed on a monthly basis.

Taiho is obligated to purchase a minimum amount of testing services from the Company each calendar quarter. Revenue recognized under this agreement was $2,745,125 and $2,864,425 for the years ended December 31, 2006 and 2007, respectively.

Services Agreement with SmithKline Beecham Corporation (d.b.a. GlaxoSmithKline or "GSK")

In January 2006, the Company entered into an agreement with GSK pursuant to which the Company provides services in connection with profiling the expression of various genes from a range of human cancers. Under the agreement, the Company will provide GSK with testing services as described in individual protocols and GSK will pay the Company for such services based on the pricing schedule established for each particular protocol. GSK is obligated to make minimum annual payments to the Company under the agreement and also was obligated to make a non-refundable upfront payment to the Company, to be credited against work undertaken pursuant to the agreement. In January 2006, the Company received an upfront payment of $2,000,000, of which $600,000 was recognized as revenue during the year ended December 31, 2006. The contract also provides for minimum annual assay testing requirements over a three year period ending January 2009. The minimum amount of revenue to be recognized during the term, which will expire in January 2009, will be $6,500,000. The timing of the recognition of these amounts is dependent upon when GSK submits the specimens for testing. The Company recognized $2,374,800 and $2,818,288 of revenue during the years ended December 31, 2006 and 2007, respectively.

9. License and Collaborative Agreements - (continued)

The initial term of the agreement will extend until January 2009, at which point, GSK has the right to extend the agreement for up to two one-year periods. Subsequently, the parties have the option to extend the agreement for one-year renewal periods upon their mutual written consent.

Master Laboratory Test Services Agreement with GlaxoSmithKline Biologicals ("GSK Bio")

In December 2006, the Company entered into an agreement with GSK Bio pursuant to which it will provide testing services, principally in relation to profiling the expression of various genes from a range of human cancers. The Company will conduct the testing services on tissue specimens provided by GSK Bio. The agreement required that GSK Bio make an upfront payment of $2,620,000 which was received by the Company in December 2006. The agreement further specifies that GSK Bio will pay annual minimum payments in 2007, 2008 and 2009 and that the upfront payment made in December 2006 will be credited against the annual minimum payments in 2007 and 2008. The agreement also provides that any differences between the annual minimum payments made in 2007, 2008 or 2009 and the amounts due to the Company for testing services performed on specimens submitted by GSK Bio during the three years ending December 31, 2009 be credited towards services performed during the year ending December 31, 2010, the final year of the agreement. The minimum amount of revenue to be recognized during the term of this contract, which will expire in December 2010, is approximately $7,300,000. In December 2007 we amended our agreement with GSK Bio whereby GSK Bio would make the remaining minimum payments under the agreement in one lump sum. This payment was received in January 2008. The timing of the recognition of these amounts is dependent upon when GSK submits the specimens for testing. The Company did not recognize any revenue from this agreement in 2006. The Company recognized $938,701 of revenue under this agreement during the year ended December 31, 2007.

Collaboration Agreement with Shanghai BioChip Company, Ltd. ("SBC")

On March 5, 2007, the Company entered into a collaboration agreement with SBC pursuant to which SBC will provide exclusive pharmacogenomic testing services to the Company's clients in China.

Pursuant to the agreement, the Company has granted SBC an exclusive license in China to provide services in China using the Company's proprietary RNA extraction technologies. Subject to consent from the USC, the Company will grant SBC an exclusive sublicense to patents licensed from the USC for distribution of testing services in China. In turn, SBC will perform RNA extraction from FFPE tissue specimens exclusively for the Company during the term of the agreement.

This agreement has an initial term of five years, with an automatic renewal for an additional three-year term unless either party gives 90 days notice in advance of the renewal date of its intent not to renew. Pursuant to the agreement, SBC will receive a percentage of the gross margin, as defined in the agreement, collected from the Company's clients in China as compensation for its testing services performed.

Commission Agreement with Hitachi Chemical Co., Ltd.

On July 26, 2007, the Company entered into a collaboration agreement with Hitachi Chemical Co., Ltd. ("Hitachi"), a leading diagnostics manufacturer in Japan (the "Hitachi Agreement"). Under the terms of this agreement, Hitachi will begin using the Company's proprietary and patented techniques to extract genetic information from formalin-fixed paraffin-embedded ("FFPE") tissue samples collected in Southeast Asia, Australia and New Zealand. As part of this collaboration agreement, the Company will provide Hitachi with the technical information and assistance necessary to perform the testing services. Hitachi also plans to introduce the Company to potential new testing services customers in the region to expand the testing of FFPE clinical samples in Asia. The Southeast Asian countries covered under this agreement include Japan, North Korea, South Korea, Taiwan, Mongolia, Pakistan, Bangladesh, Sri Lanka, Nepal, Singapore, Malaysia, Indonesia, Brunei, Thailand, Myanmar, Laos, Cambodia, Vietnam and the Philippines (the "Territory").

This Agreement has an initial term expiring on March 31, 2010, with an automatic renewal for one year at the end of the original period under the same terms and conditions. Pursuant to the agreement, Hitachi will receive a percentage of the revenue, as provided in the agreement, collected from the Company's clients in the Territory, for its testing services performed.

Hitachi is responsible for expenses related to the cost of laboratory equipment and modification to the laboratory facilities, as well as the cost of reagents. The Company is responsible for costs related to additional laboratory equipment which shall be provided to Hitachi according to a separate equipment lease agreement.

9. License and Collaborative Agreements - (continued)

Collaboration Agreement with University of California, San Francisco ("UCSF")

On July 20, 2007, the Company entered into a research study collaboration agreement with the University of California, San Francisco ("UCSF") to develop diagnostic tests for pancreatic cancer. Under the terms of this agreement, the Company will fund research performed by and collaborate with UCSF concerning molecular marker profiling and the evaluation of diagnostic assays and test kits. The research program will be carried out through July 20, 2009. As consideration for UCSF's services, the Company will pay UCSF an amount equal to its expenditures subject to a maximum amount of approximately $147,000. An initial payment of approximately $73,000 was paid upon execution of the collaboration agreement with the balance to be paid upon receipt of all samples and clinical data.

10. Stockholders' Equity (Deficit)

Common Stock

On December 14, 2006, the Board of Directors approved, subject to stockholder approval, an amendment and restatement of the Company's Certificate of Incorporation increasing the authorized common stock to 50,000,000 shares.

Preferred Stock

The Company was authorized to issue 2,000,000 shares of Preferred Stock with a par value of $0.01 per share. Of the 2,000,000 shares, the Company has designated 500,000 shares as Series A Junior Convertible Preferred Stock and 1,111,000 shares as Series B Convertible Preferred Stock.

On December 14, 2006, the Board of Directors of the Company approved and in January 2007, the stockholders approved to amend and restate the Company's Certificate of Incorporation increasing the authorized Preferred Stock to 5,000,000 shares.

Series A Junior Convertible Preferred Stock

In March 2000, the Company issued 500,000 shares of Series A Junior Convertible Preferred Stock ("Series A Junior Preferred Stock") with a par value of $0.01 per share for $5 per share (gross proceeds of $2,500,000). The Series A Junior Preferred Stock ranked senior to the Company's common stock and junior to any other preferred stock with respect to dividend and liquidation rights. Each outstanding share of Series A Junior Preferred stock could be converted into 5.2 shares of common stock provided the holder waived any unpaid dividends relating to those shares upon conversion. No dividends were declared on the Series A Junior Preferred Stock through June 8, 2007, at which time all outstanding shares of Series A Junior Preferred Stock automatically converted into 2,600,000 shares of common stock, as further discussed below upon closing of the initial public offering of the Company's common stock on June 8, 2007.

Series B Convertible Preferred Stock

In March 2000, the Company issued 1,038,048 shares of Series B Convertible Preferred stock ("Series B Preferred Stock") with a par value of $0.01 per share at $9.00 per share (gross proceeds of $9,342,432). Each outstanding share of Series B Preferred stock could be converted into one share of common stock. The Series B Preferred stock ranked senior to the common stock and any other issue of preferred stock which did not expressly provide that it ranked senior to the Series B preferred stock as to dividends, liquidation preferences or otherwise. Each outstanding share of Series B Preferred stock was entitled to receive cumulative dividends which accrued upon issuance and were payable at $.90 per annum. The Company had the option to pay the dividend in the form of common stock. Accrued dividends amounted to $6,097,579 and $0 at December 31, 2006 and December 31, 2007, respectively.

On October 24, 2006, the Board of Directors of the Company approved and on June 1, 2007, the stockholders approved to amend and restate the Certificate of Incorporation to amend the rights and preferences of the Series B Preferred Stock providing that the Series B Preferred Stock, including accrued but unpaid dividends, would automatically convert into common stock upon the closing of the initial public offering. Each share of Series B Preferred Stock was to convert into 0.8 shares of common stock. The total accrued but unpaid dividends at the date of conversion were to convert into common stock based on the fair value of the stock on the date of conversion. All outstanding shares of Series B Preferred Stock including $6,510,204 of accrued but unpaid dividends automatically converted into 1,760,467 shares of common stock upon the closing of the initial public offering of the Company's common stock on June 8, 2007, as further discussed below.

10. Stockholders' Equity - (continued)

Reverse Stock Split

On May 1, 2007, the Company's Board of Directors approved an amendment to the Company's Certificate of Incorporation to effect a 0.8-for-1 reverse stock split of the Company's common stock. A majority of shareholders approved the stock split on May 31, 2007, and on June 4, 2007 the amendment to the Certificate of Incorporation was filed, which effected the stock split. All references to shares in the consolidated financial statements and the accompanying notes, including but not limited to the number of shares and per share amounts, unless otherwise noted, have been adjusted to reflect the reverse stock split on a retroactive basis. Previously awarded options to purchase shares of the Company's common stock have been retroactively adjusted to reflect the stock split. Further, the stock split resulted in an adjustment to the conversion ratio of the Series B Convertible Preferred Stock and Series A Junior Convertible Preferred Stock.

Initial Public Offering

On June 8, 2007, the Company completed an initial public offering of 3,000,000 shares of common stock at $7.00 per share. Total net proceeds from the initial public offering was approximately $17.2 million. Upon completion of the initial public offering, the following occurred:

- All of the outstanding Series B Convertible Preferred Stock and Series A Junior Convertible Preferred Stock, including accrued but unpaid dividends, automatically converted into 4,360,467 shares of common stocks based on the initial public offering price of $7.00.

- All of the outstanding notes payable to stockholders, including accrued but unpaid interest, automatically converted into 152,489 shares of common stock based on the initial public offering price of $7.00.

11. Stock Option Plan

In March 2000, the Company adopted a Stock Option Plan (the "2000 Plan") as approved by its board of directors. Under the 2000 Plan, the Company may grant options to acquire up to 1,600,000 shares of common stock. In connection with the adoption of the 2006 Employee, Director and Consultant Stock Plan, as further discussed below, the Company will grant no additional options under its 2000 Plan under which options to purchase 200,000 shares remained outstanding as of December 31, 2007. Although no more options may be granted under the 2000 Plan, the terms of the 2000 Plan continue to apply to all outstanding options. The Company also granted options to purchase 16,000 shares of common stock to two consultants which were granted under separate agreements outside of the 2000 Plan.

On October 26, 2006, the Board of Directors of the Company approved, and on May 1, 2007, reapproved, the adoption of the 2006 Employee, Director and Consultant Stock Plan (the "2006 Stock Plan"). The stockholders approved the 2006 Stock Plan on June 1, 2007. Under this plan, the Company may grant up to a maximum of 2,160,000 options to purchase the Company's common stock. As of December 31, 2007, there were 1,183,810 options available to grant under the 2006 Stock Plan.

Employee options vest according to the terms of the specific grant and expire 10 years from the date of grant. Non-employee option grants to date vest typically over a 2 to 3 year period. The Company had 1,160,190 options outstanding at a weighted average exercise price of $7.62 at December 31, 2007. There were 580,899 nonvested stock options with a weighted average grant date fair value of $6.93 outstanding at December 31, 2007.

The Company estimated share-based compensation expense for the year ended December 31, 2007 using the Black-Scholes model with the following weighted average assumptions:

	2007
Risk free interest rate	5.03%
Expected dividend yield	—
Expected volatility	77.4%
Expected life (in years)	10

There were no options granted during the year ended December 31, 2006.

11. Stock Option Plan - (continued)

The following table summarizes the stock option activity for the year ended December 31, 2007:

	Number of Shares	Weighted Average Exercise Price
Outstanding, December 31, 2006	216,000	$ 10.69
Granted	955,190	$ 6.93
Exercised	—	$ —
Forfeited	(11,000)	$ 7.23
Outstanding, December 31, 2007	1,160,190	$ 7.62

The following table provides information for options that were outstanding and exercisable as of December 31, 2007:

	Options Outstanding			Options Exercisable	
Exercise Prices	Number	Weighted Average Remaining Life in Years	Weighted Average Exercise Price	Number	Weighted Average Exercise Price
$11.25	184,000	2.97	$ 11.25	184,000	$ 11.25
$7.00	953,190	9.26	$ 7.00	241,858	$ 7.00
$4.25-$4.29	23,000	9.73	$ 4.27	8,050	$ 4.27
	1,160,190	8.28	$ 7.62	433,908	$ 8.31

The weighted average exercise prices, remaining contractual lives and aggregate intrinsic value for options granted, exercisable and expected to vest as of December 31, 2007 were as follows:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
Outstanding	1,160,190	$ 7.62	8.28	$ —
Expected to vest	617,340	$ 6.94	9.45	$ —
Exercisable	579,291	$ 8.75	7.10	$ —

Aggregate intrinsic value excludes those options that are "not-in-the-money" as of December 31, 2007. Awards that are expected to vest take into consideration estimated forfeitures for awards not yet vested.

Information about stock-based compensation included in the results of operations for the years ended December 31, 2006 and 2007 is as follows:

	Year Ended December 31,	
	2006	2007
Cost of revenue	$ —	$ 414,692
General and administrative	15,383	898,666
Research and development	—	236,297
Totals	$ 15,383	$ 1,549,655

12. Common Stock Warrants

The Company issues warrants to purchase common shares of the Company either as compensation for services, or as additional incentive for investors who may purchase common stock. The value of warrants issued for compensation is accounted for as a non-cash expense to the Company at the fair value of the warrants issued. The value of warrants issued in conjunction with financing events is recorded as a reduction in paid in capital for common stock issuances. The Company values the warrants at fair value as calculated by using the Black-Scholes option-pricing model.

In June, 2007, in conjunction with the initial public offering, the Company issued 100,000 warrants to purchase 100,000 shares of its common stock, for proceeds of $100, to the underwriters as part of the initial public offering (see Note 10). The fair value of the common stock warrants, in the amount of $329,000, was recorded as a reduction in the proceeds of the initial public offering.

The Company valued the warrants using the Black-Scholes pricing model. The following assumptions were used to determine the fair value of those warrants:

Expected volatility	77.4%
Expected dividends	0.0%
Expected term	5.0 years
Risk-free rate	5.03%

There were no warrants granted during the year ended December 31, 2006.

The following table summarizes all common stock warrant activity during the nine months ended December 31, 2007:

	Number of Shares	Weighted Average Price
Outstanding, December 31, 2006	—	$ —
Granted	100,000	7.70
Exercised	—	—
Cancelled	—	—
Outstanding, December 31, 2007	100,000	$ 7.70
Exercisable, December 31, 2007	100,000	$ 7.70

The following table summarizes information about the warrants outstanding at December 31, 2007:

Exercise Price	Warrants Outstanding	Remaining Contractual Life (years)
$7.70	100,000	5.00
	100,000	

The Company accounts for its warrants in accordance with Emerging Issues Task Force Issue No. 00-19, "Accounting for Derivative Financial Instruments Indexed to and Potentially Settled in a Company's Own Stock" ("EITF 00-19") which requires warrants to be classified as permanent equity, temporary equity or as assets or liabilities. In general, warrants that either require net-cash settlement or are presumed to require net-cash settlement are recorded as assets and liabilities at fair value and warrants that require settlement in shares are recorded as equity instruments. The Company's warrants require settlement in shares and are accounted for as permanent equity.

13. Income Taxes

The components of the income tax provision for the years ended December 31, 2006 and 2007 were as follows:

	2006	2007
Current		
Federal	$ —	$ 14,000
Foreign	—	—
State	800	30,023
	800	44,023
Deferred		
Federal	—	—
Foreign	—	—
State	—	—
	—	—
Provision for income taxes	$ 800	$ 44,023

For financial statement purposes, loss before income taxes for the years ended December 31, 2006 and 2007 includes the following components:

	2006	2007
Domestic	$ (1,356,843)	$ (3,514,709)
Foreign	—	(1,494,175)
	$ (1,356,843)	$ (5,008,884)

A reconciliation of the expected income tax provision computed using the federal statutory income tax rate of 34% to the Company's effective income tax rate is as follows:

	2006	2007
Income tax expense (benefit) based on federal statutory rate	$ (475,000)	$ (1,703,000)
State income taxes, net of federal income tax	(129,000)	(227,000)
Change in deferred tax valuation allowance	594,700	1,919,000
Foreign income taxed at varying rates	—	60,000
Other, net	10,100	(4,977)
Provision for income taxes	$ 800	$ 44,023

The tax effects of temporary differences that give rise to significant portions of the Company's deferred tax assets and deferred tax liabilities at December 31, 2006 and 2007 are presented below:

	2006	2007
Deferred tax assets:		
Domestic net operating loss carryforwards	$ 2,255,000	$ 1,711,000
Foreign net operating loss carryforwards	—	448,000
Deferred revenue	1,962,,000	2,134,000
Federal and state tax credit	221,000	224,000
Deferred stock compensation	276,000	892,000
Capitalized costs	—	1,241,000
Other, net	—	15,000
Total gross deferred tax assets	4,684,000	6,665,000
Less valuation allowance on deferred tax assets	(4,622,000)	(6,584,000)
Net deferred tax assets	62,000	81,000
Deferred tax liabilities:		
Plant and equipment, principally accelerated depreciation	(62,000)	(81,000)
Total deferred tax liabilities	(62,000)	(81,000)
Net deferred taxes	$ —	$ —

Deferred income taxes result from temporary differences between income tax and financial reporting computed at the effective income tax rate. The Company has established a valuation allowance against its net deferred tax asset due to the uncertainty surrounding the realization of such asset. Management periodically evaluates the recoverability of the deferred tax assets. At such time it is determined that it is more likely than not that deferred tax assets are realizable, the valuation allowance will be reduced.

The Company adopted the Financial Accounting Standards Board's Interpretation No. 48, "Accounting for Uncertainty in Income Taxes, an interpretation of FASB Statement No. 109" ("FIN 48") effective January 1, 2007. FIN 48 clarifies the accounting for uncertainty in income taxes recognized in financial statements and requires the impact of a tax position to be recognized in the financial statements if that position is more likely than not of being sustained by the taxing authority. At the date of adoption, and as of Decemebr 31, 2007, the Company does not have a liability for unrecognized tax benefits.

We file U.S. federal, U.S. state, and foreign tax returns. Our major tax jurisdictions are U.S. federal and the State of California and are subject to tax examinations for the years 1999 through 2007.

As of December 31, 2007, the Company had net operating loss carryforwards for federal and state income tax purposes of approximately $4.7 million and $1.7 million, respectively. If not utilized, the federal net operating loss and tax credit carryforwards will expire beginning in 2020. If not utilized, the state net operating loss carryforward will expire beginning in 2012.

As of December 31, 2007, the Compnay had U.K. net operating loss carryforwards totaling approximately $1.5 million that may be carried forward indefinitely. A full valuation allowance has been provided against this asset.

14. Defined Contribution Plan

The Company maintains a defined contribution plan covering substantially all of its employees meeting minimum age and service requirements. Participation in the plan is optional. The Company paid administrative expenses on behalf of the plan amounting to $1,250 for years ended December 31, 2006 and 2007, respectively. At this time, the Company does not provide matching contributions to the defined contribution plan.

15. Related Party Transactions

While employed at USC, Kathleen Danenberg, president, chief executive officer and director, developed and patented (United States Patent 6,248,535; *Danenberg* , et al., Method For Isolation of RNA From Formalin-Fixed Paraffin-Embedded Tissue Specimens) an extraction method that allowed reliable and consistent isolation of RNA from FFPE suitable for RT-PCR. USC retains ownership of this patent but has exclusively licensed this technology to the Company. In consideration for this license, the Company is obligated to pay royalties to USC, as a percentage of net sales of products or services using the technology, and to meet a certain minimum in royalty payments. Pursuant to USC policy, the inventors of technology owned by the University and then liensed for commercialization are paid a portion of royalties received by the University from the licensed technology. USC therefore pays a portion of royalties received from the Company to Ms. Danenberg in recognition of her invention. Amounts paid to Ms. Danenberg amounted to $18,574 and $34,658 for the years ended December 31, 2006 and 2007, respectively.

16. Segment Information

The Company operates in a single reporting segment, with operating facilities in the United States and the United Kingdom.

The following enterprise wide disclosure was prepared on a basis consistent with the preparation of the financial statements. The following tables contain certain financial information by geographic area:

	Year Ended December 31,	
Revenue:	**2006**	**2007**
United States	$ 3,271,900	$ 3,986,663
Europe	—	938,701
Japan	2,745,125	2,864,425
	$ 6,017,025	$ 7,789,789

	December 31,	
Long-lived assets:	**2006**	**2007**
United States	$ 2,619,955	$ 3,130,065
United Kingdom	—	1,474,705
	$ 2,619,955	$ 4,604,770

EXHIBIT 31.1

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

I, Kathleen Danenberg, certify that:

1. I have reviewed this Annual Report on Form 10-KSB of Response Genetics, Inc.;

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

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

4. The small business issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d 15(f)) for the small business issuer and have:

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

(b) [Reserved.]

(c) Evaluated the effectiveness of the small business issuer's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the small business issuer's internal control over financial reporting that occurred during the small business issuer's most recent fiscal quarter (the small business issuer's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the small business issuer's internal control over financial reporting; and

5. The small business issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the small business issuer's auditors and the audit committee of the small business issuer's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the small business issuer's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the small business issuer's internal control over financial reporting.

Date: March 31, 2008

/s/ Kathleen Danenberg
Kathleen Danenberg
President and Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2

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

I, Thomas Stankovich, certify that:

1. I have reviewed this Annual Report on Form 10-KSB of Response Genetics, Inc.;

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

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

4. The small business issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d 15(f)) for the small business issuer and have:

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

(b) [Reserved]

(c) Evaluated the effectiveness of the small business issuer's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the small business issuer's internal control over financial reporting that occurred during the small business issuer's most recent fiscal quarter (the small business issuer's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the small business issuer's internal control over financial reporting; and

5. The small business issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the small business issuer's auditors and the audit committee of the small business issuer's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the small business issuer's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the small business issuer's internal control over financial reporting.

Date: March 31, 2008

/s/ Thomas Stankovich
Thomas Stankovich
Vice President and Chief Financial Officer
(Principal Financial Officer)

EXHIBIT 32

Certification
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code), each of the undersigned officers of Response Genetics, Inc., (the "Company"), does hereby certify, to the best of such officer's knowledge, that:

The Annual Report on Form 10-KSB for the year ended December 31, 2007 (the "Form 10-KSB") of the Company fully complies with the requirements of Section 13(a) and 15(d) of the Securities Exchange Act of 1934, and the information contained in the Form 10-KSB fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 31, 2008

/s/ Kathleen Danenberg
Kathleen Danenberg
President and Chief Executive Officer
(Principal Executive Officer)

Date: March 31, 2008

/s/ Thomas Stankovich
Thomas Stankovich
Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission ("SEC") or its staff upon request. This certification "accompanies" the Form 10-KSB to which it relates, is not deemed filed with the SEC and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-KSB), irrespective of any general incorporation language contained in such filing.

END