

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

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2011

OR

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

For the transition period from _____ to _____

Commission file number: 333-136424

WaferGen Bio-systems, Inc.

(Exact Name of Registrant as Specified in its Charter)

Nevada

(State or other jurisdiction of incorporation or organization)

90-0416683

(IRS Employer Identification No.)

7400 Paseo Padre Parkway, Fremont, CA

(Address of principal executive offices)

94555

(Zip Code)

(510) 651-4450

(Registrant's telephone number, including area code)

Securities registered under Section 12(b) of the Exchange Act:
Title of each class: None

Name of each exchange on which registered: None

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

Common stock, \$0.001 par value per share
(Title of Class)

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

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers in response to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer

Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company)

Smaller reporting company

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

As of June 30, 2011 (the last business day of the registrant's most recently completed second fiscal quarter), the aggregate market value of voting and nonvoting common equity held by non-affiliates of the registrant was \$19,165,715. As of that date, 35,492,065 shares of the registrant's common stock, \$0.001 par value per share, were held by non-affiliates. For purposes of this information, the outstanding shares of common stock that were held by directors and executive officers of the registrant were deemed to be shares of common stock held by affiliates at that date. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of March 21, 2012, the registrant had a total of 41,679,402 shares of common stock issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for the Registrant's 2012 Annual Meeting of Stockholders are incorporated by reference in Part III of this Form 10-K to the extent stated herein. Such Proxy Statement will be filed with the Commission not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

TABLE OF CONTENTS

	<u>Page</u>
FORWARD LOOKING STATEMENTS	1
PART I	
ITEM 1. Business	2
ITEM 1A. Risk Factors	10
ITEM 1B. Unresolved Staff Comments	22
ITEM 2. Properties	22
ITEM 3. Legal Proceedings	23
ITEM 4. Mine Safety Disclosures	23
PART II	
ITEM 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	24
ITEM 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations	25
ITEM 8. Financial Statements and Supplementary Data	34
ITEM 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	65
ITEM 9A. Controls and Procedures	65
ITEM 9B. Other Information	66
PART III	
ITEM 10. Directors, Executive Officers and Corporate Governance	67
ITEM 11. Executive Compensation	67
ITEM 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	67
ITEM 13. Certain Relationships and Related Transactions, and Director Independence	67
ITEM 14. Principal Accountant Fees and Services	67
PART IV	
ITEM 15. Exhibits and Financial Statement Schedules	68
SIGNATURES	72
EXHIBIT INDEX	73

FORWARD LOOKING STATEMENTS

Information included in this Form 10-K may contain forward-looking statements. Except for the historical information contained in this discussion of the business and the discussion and analysis of financial condition and results of operations, the matters discussed herein are forward looking statements. These forward looking statements include but are not limited to the Company's plans for sales growth and expectations of gross margin, expenses, new product introduction, and the Company's liquidity and capital needs. This information may involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from future results, performance or achievements expressed or implied by any forward-looking statements. Forward-looking statements, which involve assumptions and describe our future plans, strategies and expectations, are generally identifiable by use of the words "may," "will," "should," "expect," "anticipate," "estimate," "believe," "intend" or "project" or the negative of these words or other variations on these words or comparable terminology. In addition to the risks and uncertainties described in "Risk Factors" below and elsewhere in this Form 10-K, these risks and uncertainties may include consumer trends, business cycles, scientific developments, changes in governmental policy and regulation, currency fluctuations, economic trends in the United States and inflation. Forward-looking statements are based on assumptions that may be incorrect, and there can be no assurance that any projections or other expectations included in any forward-looking statements will come to pass. Our actual results could differ materially from those expressed or implied by the forward-looking statements as a result of various factors. Except as required by applicable laws, we undertake no obligation to update publicly any forward-looking statements for any reason, even if new information becomes available or other events occur in the future.

As used in this Annual Report on Form 10-K, unless the context otherwise requires or where otherwise indicated, the terms "WaferGen," the "Company," "we," "our" and "us" refer, prior to the Merger discussed below, to Wafergen, Inc. and after the Merger, to WaferGen Bio-systems, Inc. (or "WBSI"), together with its consolidated subsidiaries as a combined entity. On May 31, 2007, Wafergen, Inc. was acquired by WBSI. In the transactions, Wafergen, Inc. merged with a subsidiary of WBSI and became a wholly owned subsidiary of WBSI (the "Merger"). Wafergen, Inc. was considered the "acquirer" for accounting purposes, and accordingly the historical financial statements of Wafergen, Inc. for periods prior to the Merger replaced those of WBSI.

PART I

Item 1. Business

Overview

Since beginning operations in 2003, we have been engaged in the development, manufacture and marketing of laboratory analytical instruments for cell biology, and later started the development of analytical instrumentation for gene expression and genotyping research for the life sciences and pharmaceutical drug discovery industries.

Our products are aimed at professionals who perform genetic analysis, primarily at pharmaceutical and biotech companies, academic and private research centers and diagnostics companies involved in biomarker (gene expression profiling) and genotyping research. Pharmaceutical and biotech companies spent approximately \$68 billion in 2010 on research and development for new drug discovery, according to data released in January 2011 by Thomson Reuters, an independent market research firm. We believe that many of these efforts seek new therapeutic drugs, and that much of this spending will be directed at developments at the molecular level for understanding the expression of specific segments of DNA¹ (or genes). Through our SmartChip Real-Time PCR System (“SmartChip System”) we are aiding professionals in re-defining performance standards with significant time and cost savings in the fields of personalized medicine and pharmacogenomics (the study of how genes affect the way individuals respond to drugs).

We are primarily focused on developing a gene expression and genotyping product, the WaferGen SmartChip System. In August 2010, we formally launched our first generation SmartChip 5K System, which is an innovative real-time polymerase chain reaction (“real-time PCR”)² tool to enable scientists to study thousands of genes simultaneously based on gene specific pathways, potentially leading to discovery of clinically relevant disease signatures. We believe that the SmartChip System is ideal for the large and growing genomics markets, including for researchers seeking to confirm discoveries made with the growing use of next-generation sequencing³. In addition to commercializing our SmartChip System, we also provide in-house gene-expression profiling for sales demonstrations and collaborations using the SmartChip System.

Gene expression is fundamental in understanding many disease processes and hence, drug efficacy. For example, in the field of oncology (cancer treatment), greater understanding of gene expression by certain types of cancerous cells has led to the discovery of specific disease biomarkers that allow clinicians more accurate diagnosis, prognosis and treatment options for their patients. Examples of drugs developed by others specifically targeting biomarkers include Herceptin, used in the treatment of breast cancer, and Gleevec, used in the treatment of chronic myelogenous leukemia. Researchers are targeting at the molecular level and are focusing attention and research budgets on research tools that help them to develop therapies for other highly prevalent disease states, including heart and lung disease, arthritis, and diabetes.

We believe that an era is dawning of personalized treatment based on genetic analysis that will initially provide options for patients with certain malignancies and will expand to other diseases. The SmartChip System’s high density, nano-scale format is expected to provide throughput levels that are expected to deliver clinical research solutions at a fraction of the time and cost currently possible with existing competing systems. The SmartChip System also will be used for genotyping.

-
- 1 DNA (Deoxyribonucleic acid) – A polymeric molecule consisting of deoxyribonucleotide building blocks that in a double-stranded, double helical form is the genetic material of most organisms.
 - 2 Polymerase Chain Reaction (PCR) – PCR is an enzymatic process to increase the number of copies of DNA for easier detection. Real-time PCR chemistries allow for detection of the reaction in the early phase rather than the late phase of the reaction. The polymerase enzyme “reads” an intact DNA strand as a template and uses it to synthesize the a new strand, which sets in motion a chain reaction in which the DNA template is exponentially amplified, generating millions or more copies of the DNA piece. Real-time PCR simultaneously amplifies and quantifies (as an absolute number of copies or relative amount) a targeted DNA molecule in real time after each amplification cycle.
 - 3 Next Generation Sequencing – Sequencing is the determination of the order of nucleotides that make up the primary structure in DNA molecules. Early determination methods occurred in the 1970s. Next generation sequencing refers to more current automated methods that grew from new dye-based approaches enabling easier and considerably faster analysis.

WaferGen employs a business model that primarily generates revenue from both the sale of instruments (i.e. the SmartChip System) and a recurring revenue stream from the sale of consumables (i.e. the SmartChip Panel), similar to the “razor and razor blade” business model. In addition, we also perform biomarker profiling of thousands of genes using the SmartChip System in-house for customers that do not wish to make significant capital investments.

Products

Gene Expression Products

Genomics Background

DNA is a molecule, contained in the chromosomes in the nucleus of each living cell, that encodes the genetic instructions used in the development and functioning of all known organisms (other than some viruses). The DNA segments that carry this genetic information are called genes. Chemically, DNA consists of a long chain of simple units called nucleotides, with a backbone made of sugar and phosphate groups. Attached to each sugar in the backbone is one of four types of molecules called bases. It is the sequence of these four bases along the backbone that encodes information, like a four-letter alphabet.

DNA does not usually exist as a single molecule, but instead as a tightly associated pair of molecules. These two long strands entwine like vines, in the shape of a double helix. Each type of base on one strand forms a bond with just one type of base on the other strand. This is called complementary base pairing. Thus a particular sequence of bases on one strand will only bind with an exactly complementary sequence on another strand. The binding of single strands of DNA to form double-stranded DNA is termed hybridization.

Genes are segments of DNA that carry separate information packets of the genome. This information is read when the two strands of DNA “unzip” and the series of bases representing a gene are copied into the related nucleic acid RNA⁴. Like DNA, RNA also has four types of bases that bond with just one type of base on the DNA strand. This complementary base pairing of DNA onto RNA is called transcription. The transcribed RNA strand then separates from the DNA strand and acts as a template for the cell’s machinery to construct functional proteins. The sequence of the RNA bases specifies the sequence of the 20 standard amino acids that make up proteins. This process of translating genes in DNA into functional proteins is called gene expression.

Proteins are essential parts of organisms and participate in every process within cells. Many proteins are enzymes that catalyze biochemical reactions and are vital to metabolism. Proteins also have structural or mechanical functions, such as in muscle and the cellular “scaffolding” that maintains cell shape. Other proteins are important in cell signaling, immune responses, cell adhesion and cell division.

Another contributor to disease and dysfunction is the over- or under-expression of genes within an organism’s cells. A very complex network of genes interacts to maintain health in complex organisms such as humans. Although most cells contain an organism’s full set of genes, each cell, according to its function, expresses only a fraction of this set of genes in different quantities and at different times. The challenge for scientists is to delineate the associated genes’ expression patterns and their relationship to disease.

Every person inherits two copies of each gene, one from each parent. The two copies of each gene may be identical, or they may be different (when they differ, the different versions are called alleles). These differences are referred to as genetic variation. Examples of the physical consequences of genetic variation include differences in eye and hair color. Genetic variation can also have important medical consequences. Genetic variation affects disease susceptibility, including predisposition to cancer, diabetes, cardiovascular disease and Alzheimer’s disease. In addition, genetic variation may cause people to respond differently to the same drug treatment. A common form of genetic variation is a single-nucleotide polymorphism, or SNP. A SNP is a variation in a single “letter” in the DNA sequence between the two copies of the same gene. While in some cases a single SNP will be responsible for medically important effects, it is now believed that combinations of SNPs may contribute to the development of most common diseases. Since there are generally millions of SNPs in an individual, it is important to investigate many SNPs simultaneously in order to discover medically valuable information.

⁴ RNA (Ribonucleic acid) – A polymeric molecule consisting of ribonucleotide building blocks. The three major types in cells are ribosomal RNA (rRNA), transfer RNA (tRNA), and messenger RNA (mRNA), each of which performs an essential role in protein synthesis. RNAi is RNA interference that helps regulate turning genes on and off.

Gene Expression Technology Overview

Gene expression is used to provide information on the roughly 22,000 genes within the human genome. Life science researchers use gene expression profiling to study the differences in expression of genes in a normal versus a disease state. For example, a comparison of gene expression profile of breast cancer patients to those of normal patients will provide an indication of genes that are expressed differently between the two populations. Such differences can lead to identifications of genes that may be indicative of a disease state. One such example is the HER2 gene known to play a role in breast cancer. Furthermore, such differences can help physicians make treatment decisions. Researchers are conducting studies to identify a single or multiple genes that play a role in a particular disease. There are two technologies used to study gene expression, microarray and real-time PCR.

Microarrays consist of miniscule amounts of hundreds or thousands of gene sequences that are chemically attached to a surface, such as a microchip, a glass slide, or a bead. When a gene is activated in a cell, cellular machinery transcribes the gene's DNA sequence into messenger RNA ("mRNA"). As described above, the RNA is complementary and therefore will bind to the original portion of the DNA strand from which it was copied. To determine which genes are turned on and which are turned off in a given cell, the mRNA molecules present in that cell are collected and labeled by attaching a fluorescent dye. The labeled mRNA is placed onto a DNA microarray slide. The mRNA that was present in the cell, together with its fluorescent tag, will then hybridize—or bind—to its complementary DNA on the microarray.

A special scanner is used to measure the fluorescent areas on the microarray. If a particular gene is very active, it produces many molecules of messenger RNA, which hybridize to the DNA on the microarray and generate a very bright fluorescent area. Genes that are somewhat active produce fewer mRNA molecules, which results in dimmer fluorescent spots. If there is no fluorescence, none of the messenger molecules have hybridized to the DNA, indicating that the gene is inactive.

However, microarrays have limited sensitivity, accuracy and dynamic range. Human genes are expressed across a "six log" range (a single copy to a million copies) in a cell, with most species of RNA being present in fewer than 100 copies. The dynamic range of microarrays is estimated to be 2 to 3 logs⁵. Microarrays are able to detect genes that are expressed in large numbers of copies but miss genes that are present in fewer than 100 copies. Thus microarrays capture only 20-40% of the expressed genes. Consequently, one obtains only a partial view of the expression profile when utilizing microarrays due to the limited sensitivity. These overlooked genes may be important in a particular disease state. As a consequence of these limitations, the discovery of genes identified by microarray technology requires further validation using real-time PCR.

The second technology, real-time PCR, represents a sensitive and accurate method to measure gene expression. PCR is an enzymatic process in which a short strand of DNA is copied multiple times, or amplified, so that it can be more readily detected and analyzed. The vast majority of PCR methods use thermal cycling, i.e., alternately heating and cooling the sample to a defined series of temperature steps. These thermal cycling steps are necessary to physically separate the strands in a DNA double helix (at high temperatures), which are then used as the template during DNA synthesis (at lower temperatures) by the DNA polymerase enzyme to selectively amplify the target DNA.

Traditional PCR merely increases the number of DNA copies for easier detection. Real-time PCR permits quantitative analysis, rather than just a qualitative yes/no as to the presence of a gene. Real-time PCR can produce an absolute measurement, such as number of copies of mRNA per nanoliter of sample, or a relative measurement in comparison to other expressed genes. Furthermore, real-time PCR chemistries allow for the detection in the early phase, rather than the later phase of these reactions, thereby decreasing process time and increasing accuracy.

Because real-time PCR does not measure thousands of genes simultaneously (like a microarray analysis), real-time PCR has low throughput and relatively high cost, making it unfeasible for whole genome analysis or for very high throughput studies. Thus, in practice, researchers typically first use microarray to identify which genes are over- or under-expressed in the whole genome and then apply real-time PCR to a specific set of those genes to accurately quantify gene expression. The process is referred to as discovery and validation.

MicroRNA molecules are small non-protein-coding single-stranded RNA molecules of 21-23 nucleotides in length that function as negative regulators of gene expression by targeting specific mRNA molecules. This either inhibits translation or promotes mRNA degradation. We believe cancer diagnosis, prognosis, and treatment are important potential clinical applications of microRNA profiling.

⁵ Log (logarithm) range is the standard way of expressing sensitivity range; it is calculated by a serial dilution of the sample, with each tenfold dilution being one log; if, for example, a sample is diluted four times by tenfold, and a device is able to detect a gene signal in all these dilutions, then the dynamic range of the detector is said to be three logs.

SmartChip System

We believe our SmartChip System combines the best of both existing gene expression technologies and genome analysis enabled by microarrays with the sensitivity and accuracy of real-time PCR, a single platform that enables biomarker discovery and validation. WaferGen's SmartChip Real-Time PCR System consists of four components: a SmartChip Panel comprising 5,184 nanowells pre-loaded with gene-specific reaction content; a SmartChip Nanodispenser and a SmartChip MultiSample Nanodispenser, both for applying sample and reaction mix to the SmartChip Panels; and a SmartChip Cycler for performing and collecting data from the real-time PCR assays. Our SmartChip System provides sub-nanoliter (one-billionth of a liter) pre-loaded oligoneucleotide⁶ reagents and sub-microliter (one-millionth of a liter) dispensing of samples into a 5,184- or 30,000-well chip assembly that allows for high throughput real-time PCR amplification of pathway based gene discovery of the 22,000 genes that represent the whole human genome. Our SmartChip Panels are designed with evaporation control measures that allow for the use of nanoliter volumes, thermal cycling and temperature control. Our software system also analyzes the high throughput data after the completion of the real-time PCR analysis. The user friendly, content-ready SmartChip System is designed to accept samples out of the box, incorporating many of the necessary substrates and chemicals.

The SmartChip System is engineered to deliver superior performance with the combination of high sensitivity and high throughput on a single chip, enabling scientists to rapidly view a large dynamic range of the expressed genes of the human genome. The genetic analysis using the SmartChip System is expected to require one day versus what would currently take days to weeks to discover the gene expression signature with microarrays and then verify the signature with real time PCR utilizing existing genetic analysis systems. As more clinical studies are carried out using validated gene sets, we believe the market will require, and demand, higher throughput solutions to process large numbers of clinical samples. Today's solutions typically allow only a few patients' samples per chip. We offer a throughput capability that allows hundreds of samples on a single chip.

The current market cost of real-time polymerase chain reaction ("real-time PCR"), which we believe researchers currently view as the "gold standard" for genetic analysis, is approximately \$1.00 per data point. The SmartChip System, which is designed to utilize real-time PCR, can cost as little as \$0.24 per acquired data point using customized panels and often less using our standard panels.

We believe our SmartChip System is also capable of achieving time-savings when compared to existing technologies. Research analyzing the whole genome utilizing currently available real-time PCR technology takes weeks to months due to multiple plates and hundreds of pipetting steps required. Our goal for design and development of our SmartChip System is to develop the ability to quantitatively analyze the gene specific pathways or whole genome with the performance of real-time PCR technology, which, if we succeed, could be as short as a single day, and would represent a significant advancement. In addition, our development of the SmartChip System seeks to allow 5,184 to 30,000 data points per chip, which could enable a large number of reactions to run in parallel, thus addressing the unmet needs of the clinical trial market. We believe today's leading technologies are limited in throughput of 96 nanowells, 384 nanowells and 1,536 nanowells. Some new entrants in the market place like Fluidigm offer maximum throughput of 10,000 assays per chip but are limited to the validation market by offering products that can only do up to 96 assays and samples on a single chip, with third party solutions for reagents and assays for their chips.

Our SmartChip System is designed as an integrated instrument capable of thermal cycling, real-time detection and software for control and analysis. The product is available with primer-ready chips for gene expression and genotyping analysis.

The continuing commercialization of our SmartChip System involves two chip and two instrument configurations:

- A 5,184-well chip for study of gene panels or for candidate genes of interest to customers, which we launched in August 2010 and have continued to further develop and commercialize throughout 2011; and
- A high-throughput system with 30,000 nanowells. Originally scheduled for launch by the end of 2011, we delayed development of this product in order to focus on the further development and commercialization of the 5,184-well system.

An "alpha" version of the SmartChip System was tested at the University of Pittsburgh Medical Center (UPMC) under a funding grant from the National Institutes of Health (NIH). This testing was done to conduct novel gene expression research in the area of lung disease. Successful demonstration of sample dispensing, thermal cycling, and real-time fluorescent signal

⁶ An oligonucleotide is a short nucleic acid polymer, typically with twenty or fewer bases.

[Table of Contents](#)

detection of 1,000 oncology genes (in triplicate with negative controls) was achieved on 5,184-well content-ready SmartChip Panels using small amounts of RNA samples (500ngs) from chronic obstructive pulmonary disease (COPD), idiopathic pulmonary fibrosis (IPF) and healthy patients. The researchers' goal was to identify and validate disease-specific gene expression signatures for patient segmentation and therapy monitoring. Additionally, this research will include the development and application of the PulmoSmartChip, a custom designed SmartChip molecular phenotyping assay for COPD and IPF. The PulmoSmartChip, which will include the lowest number of genes that distinguish all phenotypes of IPF and COPD, will be used to identify and validate module networks (sets of genes that are co-regulated to carry out a common function) capable of predicting the natural history of the diseases and patients' response to specific therapeutics. Researchers at UPMC believe that the availability of these modules, as well as the validated PulmoSmartChip assay that allows their measurement using parallel quantitative real-time PCR, will be a significant step in laying the foundations for the introduction of personalized medicine approaches in pulmonary medicine.

Early in 2008 we formed a subsidiary company, WaferGen Biosystems (M) Sdn. Bhd. ("WGBM"), and announced the formal opening of our new, state-of-the-art facilities in Kulim Hi-Tech Park, Kedah, Malaysia. WGBM is launching various initiatives to support a number of ongoing SmartChip System development and commercialization goals. The primary functions of this organization are to perform assay development and validation functions, to oversee regional research and development activities related to the SmartChip System, and pursuing and establishing valuable research and development collaborations with local universities and government-run research centers.

Initial work at the subsidiary is focused on development activities related to the optimization of various gene panel assays to be used with the SmartChip System. These assays are for developing disease and pathway specific gene panels. To support these research and development efforts, WaferGen intends to work with the Malaysian Industrial Development Authority (MIDA) and the Malaysian Biotechnology Corporation Sdn. Bhd. (BiotechCorp) to facilitate and accelerate the operation of WGBM.

In February 2010, WaferGen scientists presented validation results of the SmartChip System at Cambridge Healthcare Institute's 17th International Molecular Medicine Tri-Conference. The poster presentation provided an overview of our whole genome, high-throughput SmartChip System, and data to demonstrate the system's ability to quantify gene expression levels by real-time PCR for a large number of genes at one time utilizing a simple workflow. WaferGen's SmartChip Human Oncology Gene Panel was used to quantify changes in gene expression levels in breast and lung tumors. Data from the study support the conclusion that WaferGen's SmartChip System provides an easy solution to perform massively parallel gene expression studies using real-time PCR technology. In addition, the availability of content-ready chips allows for an easy workflow for the researcher. Finally, the system allows analysis of thousands of genes using low (500 ng) sample input.

We have designed and launched our 5,184-well chips, and to date we have sold ten SmartChip Systems to customers in the United States, Europe and the Far East. With the 5,184-well chips, we have demonstrated our ability to perform several key steps required in a commercial version of the SmartChip System, including thermal cycling. This requires the ability to seal the sample nanowells on the chip, which we have also demonstrated. Additional milestones that we achieved in 2010 include:

- Processed SmartChip samples through our applications laboratory;
- Completed development of the SmartChip multi sample nano-dispenser; and
- Launched oncology and microRNA gene panels.

In 2011, we announced that the SmartChip Real-Time PCR System was chosen by a German consortium to advance their research toward developing a reliable blood test for detection of cancer, cardiovascular and other diseases. The results of the multicenter study were published in Nature Methods by a broad group of scientists headed by Andreas Keller at FEBIT Biomed GmbH and the Comprehensive Biomarker Center (CBC, Heidelberg).

The researchers turned to WaferGen's SmartChip System to validate their findings of significantly different microRNA levels in blood of tumors compared to those found in healthy subjects. Most microRNA expression profiles come from solid tissue samples. The purpose of this study was to assess if different microRNA expression levels could be determined in blood samples. Using the SmartChip System, they were able to confirm variations in microRNA levels from 44 individuals with lung cancer and 41 with COPD (chronic obstructive pulmonary disease). These research results and verification by the SmartChip System support the potential of using microRNA expression patterns in blood to detect disease.

In addition, in March 2011 we announced an agreement with NuGEN Technologies, Inc., a leader in innovative genomic samples preparation, to co-develop and co-market simple, seamlessly integrated workflows for gene expression profiling and target enrichment to enable researchers to more easily achieve high-throughput, high-density real-time PCR with small, degraded, and hard-to-replace clinical specimens, such as formalin fixed paraffin embedded tissue (FFPE).

Table of Contents

On August 30, 2011, the Company formed a new wholly owned subsidiary in Luxembourg, to establish a headquarters for its sales and marketing and research and development activities in Europe.

In October 2011, customers discussed the success of our SmartChip Real-time PCR System in enabling new research applications at the premier human genetics meeting, the combined 12th International Congress of Human Genetics (ICHG) and the 61st American Society of Human Genetics (ASHG) Annual Meeting, in Montreal. We hosted a Customer Symposium featuring researchers from the University of Pittsburgh Medical Center and the University of Ghent. They highlighted novel applications they developed to accelerate their research in lung disease and in understanding the role of long non-coding RNAs in cancer using the SmartChip System. Long non-coding RNAs are an emerging class of tumor transforming agents that are key components of epigenetic regulatory networks.

In 2011, we achieved additional milestones and added functionality to the SmartChip System to include:

- General availability of Quick-Turnaround SmartChip Custom Panels to enable validation studies of specific genes of interest through customization of high-throughput, real-time PCR SmartChip assay panels;
- High-throughput Single Nucleotide Polymorphism (SNP) Genotyping;
- SmartChip Human microRNA Panel V2 for gene expression profiling to specifically analyze microRNAs; and
- SmartChip Human Oncology Panel V2, a more comprehensive pre-loaded, optimized gene-specific chip, which provides pathway based gene expression profiling primarily for cancer research.

Market Applications of the SmartChip System

We believe the SmartChip System, with its advantages of higher throughput, lower cost, superior sensitivity, will have multiple market applications.

We believe the SmartChip System has the potential to become the technology of choice in both research and clinical settings.

- Biomarker Discovery and Validation. New targets (biomarkers) for drugs can be identified through the analysis of gene profile expression in diseased cells. Potential applications include cancers, arthritis, and lung diseases.
- Drug Efficacy and Optimization. Genetic analysis is being used to determine the likely toxicity (toxicogenomics) of new drugs and the likelihood of therapeutic response to a specific genetic profile (pharmacogenomics). FDA guidance⁷ calls for drug companies to voluntarily submit pharmacogenomic data to support their drug development programs.
- Drug Response Monitoring. Patient outcomes can be improved by evaluation of a proposed drug's potency and specificity in order to determine individualized patient dosing, thereby decreasing adverse drug reactions, and improving drug efficacy.
- Detection of Rare Mutations. The Cancer Genome Project is using the human genome sequence and high throughput mutation detection techniques to identify somatically acquired⁸ sequence variants/mutations and hence identify genes critical in the development of human cancers.

Biomarker Discovery and Validation: Gene expression patterns (biomarkers) related to specific diseases are becoming increasingly important in drug development. Comparison of gene expression patterns between normal and diseased patients or expression profiles in the presence or absence of drugs leads to discovery of genes or a set of genes that can be used in drug development. This requires monitoring of tens, hundreds or thousands of mRNAs in large numbers. A typical genetic analysis currently involves the use of microarrays to identify genes, which are either over-expressed or under-expressed in a small subset of patients. After detailed bioinformatics analysis, a number of differentially expressed genes (two to 200) are evaluated using real-time PCR in a different subset of patients (50 to 100). The differentially expressed genes in this patient group are then validated using a larger patient group.

7 FDA News Release - March 22, 2005 – issued a final guidance titled “Pharmacogenomic Data Submissions.”

8 Mutations arising in individual cells in the body outside the “germ-line” (sperm and egg) cells that created the individual, and hence not present in all of a person's cells.

[Table of Contents](#)

This sequential process may take from many months to a few years to complete using currently available techniques. The limitation in today's gene expression studies is the use of microarrays as a starting point for discovery, which only provides a partial glimpse of the expression profile. Real-time PCR techniques, which offer significantly increased sensitivity, are limited in throughput and are cost prohibitive for whole genome analysis. It would cost in excess of \$100,000 per analysis (assuming \$1 per assay, plus reference, plus triplicates) to study even a single whole genome (30,000 genes) sample and will take many months to complete this study (reported in a MicroArray Quality Control study conducted by the FDA published in September 2006 in Nature Biotechnology⁹). Biomarker investigation requires multiples of such analyses to confirm discovery.

Drug Efficacy and Optimization: Clinical trials are the most expensive phase for pharmaceutical drug development. The use of gene expression and genotyping is becoming critical to identify a safe drug (toxicogenomics) for the right patient population (pharmacogenomics). Once a set of genes (biomarker) is identified, they are used in numerous samples in clinical trials for pattern recognition, toxicity profiling and patient selection. Similarly, locations of SNPs involved in disease variation and metabolism are also being utilized in clinical trials to understand disease predisposition, requiring thousands of samples to be analyzed.

In its pharmacogenomic data submissions guidance referred to above, the FDA has asked for voluntary data submission utilizing these genetic approaches in clinical trials. This has created a need for reliable, high-throughput, cost-effective technologies. Today's hybridization-based techniques can process only one sample at a time. Thus, for a clinical trial of 1,000 patients, one would need to use 1,000 chips. Established real time PCR instrument suppliers typically process 96 to 1,536 data points. Our SmartChip System offers the ability to study 5,184 assays on a single chip, and thus many samples in candidate genes of interest with a limited amount of the biological sample.

Drug Response Monitoring: In addition to studying gene expression, genotyping measures genetic variation in the DNA. Sometimes it is not a single variation but the combination of these sequence differences that may lead to a disease state or a response to a specific therapy. For this reason, researchers look at patterns of these variations in a large number of healthy and affected patients in order to correlate SNPs with a specific disease. Large-scale genotyping studies are being conducted in various genome centers around the world, driven by available research funds, resulting in the greater demand for cost effective high throughput solutions.

Detection of Rare Mutations: The Cancer Genome Project's DNA sequencing of patients' tumors is underway and is rapidly defining cancer-causing mutations. Today, this is accomplished by using hybridization approaches which are unable to detect rare somatic mutations. Such techniques require the use of more sensitive methods like PCR and require genotyping of many samples (50 to 500). WaferGen intends to use allele-specific PCR with the SmartChip System to enable genotyping at multiple sites in multiple samples, as well as to provide a robust solution for detecting rare mutations. Current allele-selective PCR is able to reliably genotype SNPs (germ-line) and also reliably detect minority (somatic) mutations at sensitivity range of 100 to 10,000 mutations.

Future Applications – From Research to Diagnostics: New biomarkers for gene expression and genotyping are eventually expected to become essential for practicing physicians to identify the right drug for the right patients and lead to new ways of diagnosing and monitoring diseases. Biomarkers and platforms that are being used in clinical trials for a particular therapy are expected to become standard for molecular diagnostics. This market is still in its early development.

The WaferGen Service for Gene-Expression Profiling Using the SmartChip System

In late 2009, we announced an innovative service for gene-expression profiling of thousands of genes using the SmartChip Real-Time PCR System. By offering SmartChip services we provided early access to our products and a short-term revenue stream prior to commercialization. By taking advantage of the SmartChip Real-Time PCR System, we offered universities, pharmaceutical and diagnostic companies a service that utilized pathway-specific gene panels to discover and validate new biomarkers. Researchers were afforded early access to the technology and the benefit of new and upcoming gene panels. In addition, academic researchers could obtain preliminary data at a reasonable cost to submit for grants to complete more advanced studies.

The WaferGen SmartChip Service is targeted at scientists involved in the discovery and validation of molecular biomarkers. The initial product to be run on the SmartChip platform is the SmartChip Human Oncology Gene Panel that provides pathway based gene expression profiling for Oncology. It may also be used for Immunology, Metabolic and Stem Cell

9 The MicroArray Quality Control (MAQC) project shows inter- and intra-platform reproducibility of gene expression measurements, Nature Biotechnology, Vol. 24:9, p 1151, September 2006.

[Table of Contents](#)

research. The 5,184-well SmartChip Panel uses a small amount of biological material to query a thousand genes in a single sample, enabling discovery of biomarkers while saving researchers time and money.

In the first quarter of 2010, we made available, as part of this SmartChip gene-expression profiling service, the Human MicroRNA Panel, which provided one of the most comprehensive human microRNA panels available, able to test over 800 microRNAs on a single SmartChip Panel. Development of a second version, capable of testing over 1,200 microRNAs, commenced in late 2010 and launched in early 2011, and a third version launched in late 2011. These microRNA SmartChip Panels provide the latest and most complete information presently available to researchers on a single panel. The SmartChip design allows WaferGen to quickly incorporate newly released sequences giving researchers the ability to stay up to date with the latest discoveries. The new Human MicroRNA expression profiling service will use the human genes from the new miRBase version 14.0 sequence database, providing researchers with the latest, up-to-date-sequences.

Competition

SmartChip Systems

We believe the primary industry competitors in the markets in which WaferGen plans to enter and compete are Life Technologies Corporation (“LIFE”), Affymetrix, Inc. (“Affymetrix”) Fluidigm Corporation and Illumina, Inc. Other companies known to be currently serving the genetic analysis market include Agilent Technologies, Inc., GE Healthcare (a business segment of General Electric Company), Bio-Rad Laboratories, Inc., Eppendorf AG, Beckman Coulter, Inc., Luminex Corporation, Cepheid, Pacific Biosciences of California, Inc., PerkinElmer, Inc., NanoString Technologies, Inc., Qiagen N.V., Biometra Biomedizinische Analytik GmbH, Enzo Biochem, Inc., Idaho Technologies, Inc. and the Roche family of companies. The marketplace for gene expression technologies is highly competitive, with many of the major players already controlling significant market share, many of which have significantly greater financial, technology, and other resources than we do. Affymetrix is the leader in microarrays for whole genome analysis, and LIFE is the market leader for real-time PCR. We believe gene expression is a growing market and this market is driven by the need for real time PCR performance for discovery, and a higher throughput platform for validation, to overcome the limitations of microarrays and real time PCR technologies that are currently used for discovery and validation respectively. WaferGen’s SmartChip Real Time PCR System is presently the only platform that offers a single solution for both biomarker discovery and validation with low running costs, simplified workflow and fast results. Our competitors could compete with us by developing new products similar to our SmartChip System. Even though we believe that we have created a unique solution, this does not mean that our competitors will not develop effective products to compete with our products.

Sales and Marketing

In November 2011, we announced a revised plan to commercialize and increase adoption of our SmartChip System to address the rapidly changing needs of the life sciences research market and to better anticipate future needs of researchers. We decided to invest significantly in scientific resources focused on a strategy to engage an array of key opinion leaders in our target market, enabling the profiling and validation of high-value genomic targets.

With the advent of next-generation sequencing into the life science marketplace in 2007, there has been a dramatic increase in the amount of genomic content that is available to researchers beyond what other genomic technologies have generated. However, there is an equally dramatic and rapidly growing unmet need to validate and confirm the results of this sequencing information to find clinically relevant biomarkers. In particular, the data from RNA sequencing experiments, in which researchers are quantifying gene expression levels, is well suited to the high throughput validation of the SmartChip platform. This ability to accurately make quantitative genome measurements is an integral tool in enabling researchers to verify the results coming from next-generation sequencers. Once verified, this content creates a larger, longer term opportunity for the Company as we significantly increase the ability of researchers to validate high value genomic targets for their ultimate use in developing new and improved drugs and diagnostic tests.

Using the SmartChip platform, researchers can study many genes simultaneously on multiple samples with a single chip to test the signature of interest. This should enable greater accuracy for discovery of biomarkers and decreased time to results.

Seasonality

We do not have sufficient product history to determine seasonality with a high degree of confidence. We expect that customers' purchasing patterns will not show significant seasonal variation, although demand for our products may be highest in the fourth quarter of the calendar year as pharmaceutical and academic customers typically spend unused budget allocations before the end of the fiscal year.

Sources and Availability of Raw Material and Principal Suppliers

The raw materials used in the manufacturing of our products are for the most part readily available from numerous sources.

Research and Development

Our research and development efforts are aimed at finding new varieties of products, improving existing products, improving product quality and reducing production costs. Our research and development expenses were approximately \$8.29 million for the year ended December 31, 2011 and \$6.71 million for the year ended December 31, 2010.

Intellectual Property and Other Proprietary Rights

We are pursuing an intellectual property portfolio, including filing a number of U.S. and international patent applications and in-licensing certain patents covering products, methodologies, integration and applications. We presently have three patents issued in the U.S. with respect to our SmartChip products and technologies, and a number of pending SmartChip-related patent applications worldwide. In addition to our patents, we rely on trade secrets, know-how, and copyright and trademark protection. Our success may depend on our ability to protect our intellectual property rights.

Government Regulation and Environmental Matters

We are subject to a variety of federal, state and municipal environmental and safety laws based on our use of hazardous materials in both our manufacturing and research and development operations. We believe that we are in material compliance with applicable environmental laws and regulations. If we cause contamination to the environment, intentionally or unintentionally, we could be responsible for damages related to the clean-up of such contamination or individual injury caused by such contamination. We cannot predict how changes in the laws and regulations will impact how we conduct our business operations in the future or whether the costs of compliance will increase in the future.

Regulation by governmental authorities in the United States and other countries is not expected to be a significant factor in the manufacturing, labeling, distribution and marketing of our products and systems.

Employees

We have assembled a team of highly qualified scientists, engineers and business managers to support our product development and commercialization activities. Their efforts will continue to focus on selling, improving and refining our core technologies. As of December 31, 2011, we had 54 regular employees, 52 of whom were employed full-time, compared to 55 regular employees as of December 31, 2010, 53 of whom were employed full-time. None of our employees are represented by a labor union, and we consider our employee relations to be good. We believe that our future success will depend, in part, on our continued ability to attract, hire and retain qualified personnel.

Item 1A. Risk Factors

The following risk factors should be considered carefully in addition to the other information contained in this report. This report contains forward-looking statements. Forward-looking statements relate to future events or our future financial performance. We generally identify forward-looking statements by terminology such as "may," "will," "should," "expects," "plans," "anticipates," "could," "intends," "target," "projects," "contemplates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these terms or other similar words. These statements are only predictions. The outcome of the events described in these forward-looking statements is subject to known and unknown risks, uncertainties and other factors that may cause our customers' or our industry's actual results, levels of activity, performance or

[Table of Contents](#)

achievements expressed or implied by these forward-looking statements, to differ. “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business,” as well as other sections in this report, discuss some of the factors that could contribute to these differences.

The forward-looking statements made in this report relate only to events as of the date on which the statements are made. We undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events.

This report also contains market data related to our business and industry. These market data include projections that are based on a number of assumptions. If these assumptions turn out to be incorrect, actual results may differ from the projections based on these assumptions. As a result, our markets may not grow at the rates projected by these data, or at all. The failure of these markets to grow at these projected rates may have a material adverse effect on our business, results of operations, financial condition and the market price of our common stock.

Risks Related to Our Company and Our Business

We will need to raise additional capital to meet our business requirements in the future and such capital raising may be costly or difficult to obtain and could dilute current stockholders’ ownership interests.

We will need to raise additional capital in the future, which may not be available on reasonable terms or at all. We raised approximately \$9.9 million in net proceeds in our June 2007 private placement, approximately \$3.5 million in net proceeds in our May 2008 private placement, approximately \$5.5 million in net proceeds in our private placement completed in June and August 2009, approximately \$4.5 million in net proceeds in our private placement that completed in December 2009 and January 2010, approximately \$6.8 million in net proceeds in our registered offering that completed in July 2010 and approximately \$27.5 million in net proceeds in our private placement that completed in May 2011 (the “May 2011 Private Placement”). We have also raised approximately \$1.8 million net of origination fees from a term loan in December 2010 (repaid in connection with the May 2011 Private Placement) and approximately \$8.8 million in net proceeds from the issuance of convertible preference shares in our Malaysian subsidiary. We expect that such proceeds, together with our income, will fund our operations until 2013. We will need to raise additional funds through public or private debt or equity financings to meet various business objectives including, but not limited to:

- pursuing growth opportunities, including more rapid expansion;
- acquiring complementary businesses;
- making capital improvements to improve our infrastructure;
- hiring qualified management and key employees;
- developing new services, programming or products;
- responding to competitive pressures;
- complying with regulatory requirements such as licensing and registration; and
- maintaining compliance with applicable laws.

Any additional capital raised through the sale of equity or equity backed securities may dilute current stockholders’ ownership percentages and could also result in a decrease in the market value of our equity securities.

The terms of any securities issued by us in future capital transactions may be more favorable to new investors, and may include preferences, superior voting rights and the issuance of warrants or other derivative securities, which may have a further dilutive effect on the holders of any of our securities then outstanding.

Furthermore, any additional debt or equity financing that we may need may not be available on terms favorable to us, or at all. If we are unable to obtain such additional financing on a timely basis, we may have to curtail our development activities and growth plans and/or be forced to sell assets, perhaps on unfavorable terms, which would have a material adverse effect on our business, financial condition and results of operations, and ultimately could be forced to discontinue our operations and liquidate, in which event it is unlikely that stockholders would receive any distribution on their shares. See

[Table of Contents](#)

“Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources” below. Further, we may not be able to continue operating if we do not generate sufficient revenues from operations needed to stay in business.

In addition, we may incur substantial costs in pursuing future capital financing, including investment banking fees, legal fees, accounting fees, securities law compliance fees, printing and distribution expenses and other costs. We may also be required to recognize non-cash expenses in connection with certain securities we issue, such as convertible promissory notes and warrants, which may adversely impact our financial condition.

We are highly leveraged.

In the May 2011 Private Placement, we issued convertible promissory notes in the initial aggregate face value of \$15,275,000, which accrue interest at a rate of 5% per annum through November 27, 2014, and which had accrued a total of \$460,383 in interest added to principal as of December 31, 2011. The principal, including the accrued interest added to principal under these convertible promissory notes, is convertible into our common stock at \$0.57 per share. These securities may have negative consequences for us, such as:

- limiting our ability to obtain additional financing;
- limiting funds available to us because we may need to dedicate a substantial portion of our cash flow from operations to the payment of interest expense, thereby reducing the funds available to us for other purposes, including capital expenditures;
- increasing our vulnerability to economic downturns and changing market and industry conditions; and
- limiting our ability to compete with companies that are not as highly leveraged and that may be better positioned to withstand economic downturns.

We have experienced a decline in sales, and we may be unable to generate sufficient sales to achieve profitable operations.

Our future is dependent upon the success of the current and future generations of one or more of the products we sell or propose to sell, including the SmartChip System. Historically, there have been limited sales of any of our products, and we experienced no system sales during the nine months ended December 31, 2011. If future market acceptance of our products is poor, we will not be able to generate adequate sales to achieve profitable operations.

We have a limited history of commercial sales of systems and consumable products, and our success depends on our ability to develop commercially successful products and on market acceptance of our new and relatively unproven technologies.

We may not possess all of the resources, capability and intellectual property rights necessary to develop and commercialize all of the products or services that may result from our technologies. Our long-term viability growth and profitability will depend upon successful testing, approval and commercialization of the SmartChip System incorporating our technology resulting from our research and development activities. Adverse or inconclusive results in the development and testing of our SmartChip System could significantly delay or ultimately preclude commercialization of our technology. Accordingly, there is only a limited basis upon which to evaluate our business and prospects. An investor in our Company should consider the challenges, expenses, and difficulties we will face as an emerging company seeking to develop and manufacture a new product in a relatively new market.

We must conduct a substantial amount of additional research and development before some of our products will be ready for sale. We currently have fewer resources available for research and development activities than many of our competitors. We may not be able to develop or launch new products in a timely manner, or at all, or they may not meet customer requirements or be of sufficient quality or at a price that enables us to compete effectively in the marketplace. Challenges frequently encountered in connection with the development or early commercialization of products and services using new and relatively unproven technologies might limit our ability to develop and successfully commercialize these products and services. In addition, we may need to enter into agreements to obtain the intellectual property rights necessary to commercialize some of our products or services, which may not be available on favorable terms, or at all.

We have a history of operating losses which may continue, in which case we may not be able to reach profitability.

We have a history of losses and may continue to incur operating and net losses for the foreseeable future. We incurred a net loss of \$13.1 million for the year ended December 31, 2011. As of December 31, 2011, our accumulated deficit was \$56.4 million. We have not achieved operating profitability on a quarterly or annual basis. We may not be able to reach a level of revenue to achieve profitability. To date, our revenues have been insufficient to achieve our business plan. Our revenues were \$2.2 million for the year ended December 31, 2010, and \$0.5 million for the year ended December 31, 2011. If our revenues grow slower than anticipated, or if operating expenses exceed expectations, then we may not be able to achieve profitability in the near future or at all, which may depress our common stock price.

We have a limited operating history for investors to evaluate our business.

We have had limited operations in the genetic analysis segment of the life science industry. Since we are a company with a limited operating history developing products focused on the analysis of genetic function and variation, it is difficult for potential investors to evaluate our business. Our future operations and growth will likely depend on our ability to fully develop and market our SmartChip products and services. Our proposed operations are subject to all of the risks inherent in light of the expenses, difficulties, complications and delays frequently encountered in connection with the formation of any new business, as well as those risks that are specific to the life science industry. In evaluating us, investors should consider the delays, expenses, problems and uncertainties frequently encountered by companies developing markets for new products, services and technologies. We may never overcome these obstacles and become profitable.

Difficult conditions in the global capital markets may significantly affect our ability to raise additional capital.

The ongoing worldwide financial and credit crisis may continue indefinitely. Because of severely reduced market liquidity, we may not be able to raise additional capital when we need it. Because the future of our business will depend on the completion of one or more investment transactions for which, most likely, we will need additional capital, we may not be able to complete such transactions or acquire revenue producing assets. As a result, we may not be able to generate income and, to conserve capital, we may be forced to curtail our current business activities or cease operations entirely.

Currency risk related to obligations and expenses denominated in Malaysian Ringgit could negatively impact our operating results and financial condition.

All of the convertible preference shares ("CPS") issued by our Malaysian subsidiary, WGBM, were issued in consideration for Malaysian Ringgit, and significant amounts of this subsidiary's expenses are paid for in this currency. At December 31, 2011, the Company had approximately \$1.4 million in assets in Malaysia. Fluctuations in the exchange rate could negatively impact our business operating results and financial condition by resulting in exchange losses or increased expenses. Translation adjustments in any particular reporting period could significantly affect, positively or negatively, our reported operating results.

Because our business depends on research and development spending levels for pharmaceutical and biotechnology companies and academic and governmental research institutions, our success and our operating results will substantially depend on these customers.

We expect that our revenues in the foreseeable future will be derived primarily from products and services provided to a relatively small number of pharmaceutical and biotechnology companies and academic, governmental and other research institutions. Our success will depend upon their demand for and use of our products and services. Our operating results may fluctuate substantially due to reductions and delays in research and development expenditures by these customers. For example, reductions in capital or operating expenditures by these customers may result in lower than expected instrumentation sales and similarly, reductions in operating expenditures by these customers could result in lower than expected sales by us.

We expect that our results of operations will fluctuate, which could cause our stock price to decline.

Our revenue is subject to fluctuations due to the timing of sales of high-value products and service projects, the impact of seasonal spending patterns, the timing and size of research projects our customers perform, changes in overall spending levels in the life sciences industry, the timing and amount of government grant funding programs and other unpredictable

[Table of Contents](#)

factors that may affect customer ordering patterns. Given the difficulty in predicting the timing and magnitude of sales for our products and services, we may experience quarter-to-quarter fluctuations in revenue and/or a sequential decline in quarterly revenue.

If revenue does not grow as anticipated, we may not be able to achieve and maintain profitability. Any significant delays in the commercial launch of our products, unfavorable sales trends in our existing product lines, or impacts from the other factors mentioned above could adversely affect our revenue growth or cause a sequential decline in quarterly revenues. Due to the possibility of fluctuations in our revenue and expenses, we believe that quarterly comparisons of our operating results are not a good indication of our future performance. If our operating results fluctuate or do not meet the expectations of stock market analysts and investors, our stock price probably would decline.

We may encounter difficulties in managing our expected growth, which could increase our losses.

We expect to experience rapid and substantial growth in order to achieve our operating plans, which will place a strain on our human and capital resources. If we are unable to manage this growth effectively, our losses could increase. Our ability to manage our operations and growth effectively requires us to continue to expend funds to enhance our operational, financial and management controls, reporting systems and procedures and to attract and retain sufficient numbers of talented employees. If we are unable to scale up and implement improvements to our manufacturing process and control systems in an efficient or timely manner, or if we encounter deficiencies in existing systems and controls, then we will not be able to make available the products required to successfully commercialize our technology.

Failure to attract and retain sufficient numbers of talented employees will further strain our human resources and could impede our growth.

Our financial condition could be adversely affected in the event of uninsured or inadequately insured loss or damage.

We may not be able to obtain insurance policies on terms affordable to us that would adequately insure our business and property against damage, loss or claims by third parties. To the extent our business or property suffers any damages, losses or claims by third parties, which are not covered or adequately covered by insurance, the financial condition of our Company may be materially adversely affected.

If we lose our key personnel or are unable to attract and retain additional qualified personnel, we may be unable to achieve our goals.

We are highly dependent on our management and scientific personnel, including our chief executive officer, chief operating officer, chief scientific officer and chief financial officer. The loss of any of their services could adversely impact our ability to achieve our business objectives. We will need to hire additional qualified personnel with expertise in molecular biology, chemistry, biological information processing, sales, marketing and technical support. We compete for qualified management and scientific personnel with other life science companies, universities and research institutions, particularly those focusing on genomics. Competition for these individuals, particularly in the San Francisco Bay area, is intense, and the turnover rate can be high. Failure to attract and retain management and scientific personnel would prevent us from pursuing collaborations or developing our products or technologies.

Our planned activities will require additional expertise in specific industries and areas applicable to the products developed through our technologies, including the life sciences and healthcare industries.

Thus, we will need to add new personnel, including management, and develop the expertise of existing management. The failure to do so could impair the growth of our business.

Corporate governance rules, including those contained in and issued under the Sarbanes-Oxley Act of 2002, may make it difficult for us to retain or attract qualified officers and directors, which could adversely affect the management of our business and our ability to obtain or retain listing of our common stock.

We may be unable to attract and retain those qualified officers, directors and members of board committees required to provide for our effective management because of the changes in the rules and regulations that govern publicly held

[Table of Contents](#)

companies, including, but not limited to, certifications by principal executive officers. The enactment of Sarbanes-Oxley has resulted in the issuance of a series of rules and regulations and the strengthening of existing rules and regulations by the SEC, as well as the adoption of more stringent rules by the stock exchanges. The perceived increased personal risk associated with these recent changes may deter qualified individuals from accepting roles as directors and executive officers.

Further, some of these recent changes heighten the requirements for board or committee membership, particularly with respect to an individual's independence and level of experience in finance and accounting matters. We may have difficulty attracting and retaining directors with the requisite qualifications. If we are unable to attract and retain qualified officers and directors, the management of our business and our ability to obtain or retain the listing of our common stock on any stock exchange (assuming we elect to seek and are successful in obtaining such listing) could be adversely affected.

We are a holding company that depends on cash flow from our wholly owned subsidiaries to meet our obligations.

After the Merger, we became a holding company with no material assets other than the stock of Wafergen, Inc. All our operations are still conducted by this company and our other wholly owned subsidiaries. We currently expect that the earnings and cash flow of our subsidiaries will primarily be retained and used by them in their operations, including servicing any debt obligations they may have now or in the future.

All of our former liabilities survived the Merger and there may be undisclosed liabilities that could have a negative impact on our financial condition.

Pursuant to the Merger, we acquired the business of Wafergen as our sole line of business, and accordingly are not pursuing our prior business. Although due diligence activities were performed on us and Wafergen prior to the Merger, the due diligence process may not have revealed all liabilities (actual or contingent) of us or Wafergen that existed or which may arise in the future relating to our activities before the consummation of the Merger. Notwithstanding that all of our then-known liabilities were transferred to La Burbuja Leaseco pursuant to the split-off in connection with the Merger, it is possible that claims for liabilities may still be made against us, which we will be required to defend or otherwise resolve. The provisions and terms of the merger agreement and split-off may not be sufficient to protect us from claims and liabilities and any breaches of related representations and warranties. Although escrow provisions and limited post-closing adjustments in the merger agreement are available to the stockholders of Wafergen and our pre-Merger stockholders, there is no comparable protection offered to our other stockholders. Any liabilities remaining from our pre-Merger company or Wafergen, Inc. could harm our financial condition.

If we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results or detect fraud. Consequently, investors could lose confidence in our financial reporting and this may decrease the trading price of our common stock.

We must maintain effective disclosure and internal controls to provide reliable financial reports. We have been assessing our controls to identify areas that need improvement. Based on our evaluation as of December 31, 2011, we concluded that there was a material weakness in our internal controls and procedures as of December 31, 2011. We are in the process of implementing improvements to our controls, but have not yet completed implementing these changes. Failure to implement these changes to our controls or any others that we identify as necessary to maintain an effective system of such controls could harm our operating results and cause investors to lose confidence in our reported financial information. Any such loss of confidence would have a negative effect on the trading price of our common stock.

Because we are not yet required to comply with rules requiring the adoption of certain corporate governance measures, our stockholders have limited protections against interested director transactions, conflicts of interest and similar matters.

Sarbanes-Oxley, as well as rule changes proposed and enacted by the SEC, the New York and American Stock Exchanges and The NASDAQ Stock Market, as a result of Sarbanes-Oxley, require the implementation of various measures relating to corporate governance. These measures are designed to enhance the integrity of corporate management and the securities markets and apply to securities which are listed on those exchanges. Because we are not presently required to comply with many of the corporate governance provisions, we have not yet adopted these measures.

Until we comply with the corporate governance measures adopted by the national securities exchanges after the enactment of Sarbanes-Oxley, regardless of whether such compliance is required, the absence of standards of corporate governance may leave our stockholders without protections against interested director transactions, conflicts of interest and similar matters

[Table of Contents](#)

and investors may be reluctant to provide us with funds in the future if we determine it is necessary to raise additional capital. We intend to comply with all applicable corporate governance measures relating to director independence once applicable.

Litigation or other proceedings or third-party claims of intellectual property infringement could require us to spend significant time and money and could prevent us from selling our products or services or adversely impact our stock price.

Our commercial success depends in part on our non-infringement of the patents or proprietary rights of third parties and the ability to protect our own intellectual property.

Third parties may assert that we are employing their proprietary technology without authorization even if we are not. As we enter new markets, we expect that competitors will likely assert that our products infringe their intellectual property rights as part of a business strategy to impede our successful entry into those markets. Third parties such as Life Technologies Corporation, the Roche family of companies, Biometra Biomedizinische Analytik GmbH, Bio-Rad Laboratories, Inc., Eppendorf AG, Enzo Biochem, Inc., Affymetrix, Inc., Illumina, Inc., Agilent Technologies, Inc., GE Healthcare, Beckman Coulter, Inc., Qiagen N.V., Idaho Technology, Inc., PerkinElmer, Inc., Fluidigm Corporation, Cepheid, Pacific Biosciences of California, Inc., the Exiqon family of companies, Luminex Corporation, and others may have obtained and may in the future obtain patents and claim that manufacture, use and/or sale of our technologies, methods or products infringes these patents. We could incur substantial costs and divert the attention of our management and technical personnel in defending ourselves against these claims even if we are eventually successful in defending ourselves against these claims. Furthermore, parties making claims against us may be able to obtain injunctive or other relief, which effectively could block our ability to further develop, commercialize, manufacture, use and sell methods and products, and could result in the award of substantial damages against us. In the event of a successful claim of infringement against us, we may be required to pay damages and obtain one or more licenses from third parties, or be prohibited from making, using or selling certain methods and/or products. We may not be able to obtain these licenses at a reasonable cost, or at all. In that event, we could encounter delays in product introductions while we attempt to develop alternative methods or products. Defense of any lawsuit or failure to obtain any of these licenses on favorable terms could prevent us from commercializing products, and the prohibition of sale of any of our products could materially affect our ability to grow and to attain profitability.

Our proprietary intellectual property rights may not adequately protect our products and technologies.

Although we have filed a number of United States and international patent applications, we have three issued patents, which do not cover all of our products and technologies. Our commercial success will depend in part on obtaining and maintaining patent protection and trade secret protection for our products and technologies. Patent law relating to claims in the technology fields in which we operate is uncertain, so we cannot be assured the patent rights we have, or may obtain in future, will be valuable or enforceable. We may only be able to protect products and technologies from unauthorized use by third parties to the extent that valid and enforceable patents or trade secrets cover them. Furthermore, the degree of future protection of our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep a competitive advantage.

The patent positions of life sciences companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in such companies' patents has emerged to date in the United States. The laws of some countries other than the United States do not protect intellectual property rights to the same extent as the laws of the United States, and many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biotechnology and/or pharmaceuticals, which could make it difficult for us to stop the infringement of any patents we may obtain in such countries. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business. Changes in either the patent laws or in interpretations of patent laws in the United States or other countries may diminish the value of our intellectual property. Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in our patents or in third-party patents. For example:

- we might not have been the first to conceive or reduce to practice one or more inventions disclosed in our pending patent applications;
- we might not have been the first to file patent applications for these inventions;

[Table of Contents](#)

- others may independently develop similar or alternative products and technologies or duplicate any of our products and technologies;
- it is possible that none of our pending patent applications will result in issued patents, and even if they issue as patents, they may not provide a basis for commercially viable products, and/or may not provide us with any competitive advantages, or may be challenged and invalidated by third parties;
- we may not develop additional proprietary products and technologies that are patentable; and
- third-party patents may have an adverse effect on our ability to continue to grow our business.

We have applied, and continue to apply, for patents covering our intellectual property (e.g., products and technologies and uses thereof), as we deem appropriate. However, we may fail to apply for patents on products and/or technologies in a timely fashion or at all.

We also rely on trade secrets to protect our technology, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. While we attempt to use reasonable efforts to protect our trade secrets, our employees, consultants, contractors, or scientific and other advisors may unintentionally or willfully disclose our information to competitors. If we were to attempt to enforce a claim that a third-party had illegally obtained and was using our trade secrets, it could be expensive and time consuming, and the outcome could be unpredictable. In addition, courts outside the United States are sometimes less willing to protect trade secrets than courts inside the United States. Moreover, if our competitors independently develop equivalent knowledge, methods and know-how, it may be difficult for us to enforce our intellectual property and our business could be harmed.

If we are not able to defend the patent or trade secret protection position of our products and technologies, then we may not be able to exclude competitors from developing or marketing competing products, and we may not generate enough revenue from product sales to justify the cost of development of our products and to achieve or maintain profitability.

We may be unable to protect the intellectual property rights of the third parties from whom we license certain of our intellectual property or with whom we have entered into other strategic relationships, which could negatively impact our competitive advantage.

None of our intellectual property rights are currently licensed from third parties but, in the future, we may have to license intellectual property from key strategic partners. We may become reliant upon such third parties to protect their intellectual property rights to any licensed technology. Such third parties may not protect the intellectual property rights that we license from them and we may be unable defend such intellectual property rights on our own or we may have to undertake costly litigation to defend the intellectual property rights of such third parties. There can be no assurances that we will continue to have proprietary rights to any of the intellectual property that we license from such third parties or otherwise have the right to use through similar strategic relationships. Any loss or limitations on use with respect to our right to use such intellectual property licensed from third parties or otherwise obtained from third parties or with whom we have entered into strategic relationships could negatively impact our competitive advantage.

We expect intense competition in our target markets, which could render our products and/or technologies obsolete, result in significant price reductions or substantially limit the volume of products that we sell. This would limit our ability to compete and achieve and maintain profitability. If we cannot continuously develop and commercialize new products, our revenue may not grow as intended.

Future competition will likely come from existing competitors as well as other companies seeking to develop new technologies for analyzing genetic information, such as next generation sequencing. Some of our competitors have various products and/or methodologies for gene detection, expression, characterization, and/or analyses that may be competitive with our products and/or methodologies. In addition, pharmaceutical and biotechnology companies have significant needs for genomic information and may choose to develop or acquire competing technologies to meet these needs. In the molecular diagnostics field, competition will likely come from established diagnostic companies, companies developing and marketing DNA probe tests for genetic and other diseases and other companies conducting research on new technologies to ascertain and analyze genetic information. Further, in the event that we develop new technology and products that compete with existing technology and products of well-established companies, there can be no guarantee that the marketplace will readily adopt any such new technology and products that we may introduce in the future.

The market for genetic research and molecular diagnostic products is highly competitive, with several large companies already having significant market share. Established genetic research and diagnostic companies also have an installed base of

instruments in several markets, including clinical and reference laboratories. In addition, these companies have formed alliances with genomics companies which provide them access to genetic information that may be incorporated into their diagnostic tests. We may not be able to compete effectively with these companies.

Our manufacturing capacity may limit our ability to sell our products.

There are uncertainties inherent in expanding our manufacturing capabilities and we may not be able to increase our capacity in a timely manner. For example, manufacturing and product quality issues may arise as we increase production rates at our manufacturing facility and launch new products. As a result, we may experience difficulties in meeting customer demand, in which case we could lose customers or be required to delay new product introductions, and demand for our products could decline. Due to the intricate nature of manufacturing products, we may encounter similar or previously unknown manufacturing difficulties in the future that could significantly reduce production yields, impact our ability to launch or sell these products, or to produce them economically, prevent us from achieving expected performance levels or cause us to set prices that hinder wide adoption by customers.

If we are unable to develop and maintain our manufacturing capability, we may not be able to launch or support our products in a timely manner, or at all.

We currently possess only one facility capable of manufacturing our products and services for both sale to our customers and internal use. If a natural disaster were to significantly damage our facility or if other events were to cause our operations to fail, these events could prevent us from developing and manufacturing our products and services. If our networks or storage infrastructure were to fail for an extended period of time, it would adversely impact our ability to manufacture our products on a timely basis and may prevent us from achieving our expected shipments in any given period.

Our reliance on outside manufacturers and suppliers to provide certain instruments could subject us to risks that may harm our business.

From time to time we may change manufacturers, and any new manufacturer engaged by us may not perform as expected. If our vendors experience shortages or delays in their manufacture of our instruments, or if we experience quality problems with our vendors, then our shipment schedules could be significantly delayed or costs significantly increased. Certain of our instruments may be manufactured by a single vendor, which could magnify the risk of shortages.

We may be adversely affected by environmental, health and safety laws, regulations and liabilities.

As we pursue our business plan, we will become subject to a variety of federal, state and municipal environmental, health and safety laws based on our use of hazardous materials in both our manufacturing and research and development operations. These laws and regulations can often require expensive compliance procedures or operational changes to limit actual or potential impacts to the environment. A violation of these laws and regulations can result in substantial fines, criminal sanctions and/or operational shutdown. Furthermore, we may become liable for the investigation and cleanup of environmental contamination, whether intentional or unintentional, and we could be responsible for damages related to the clean-up of such contamination or individual injury caused by such contamination. We may also be subject to related claims by private parties alleging property damage and personal injury due to exposure to hazardous or other materials as a result of such contamination. Some of these matters may require expending significant amounts for investigation, cleanup or other costs. Events such as these could negatively impact our financial position.

Our sales, marketing and technical support organization may limit our ability to sell our products.

We currently have limited resources available for sales and marketing and technical support services as compared to some of our primary competitors. In order to effectively commercialize our gene expression systems and other products to follow, we will need to expand our sales, marketing and technical support staff both domestically and internationally. We may not be successful in establishing or maintaining either a direct sales force or distribution arrangements to market our products and services. In addition, we compete primarily with much larger companies that have larger sales and distribution staffs and a significant installed base of products in place, and the efforts from a limited sales and marketing force may not be sufficient to build the market acceptance of our products required to support continued growth of our business.

We may be exposed to liability due to product defects.

The risk of product liability claims is inherent in the testing, manufacturing, marketing and sale of research products for therapeutic and diagnostic development. We may seek to acquire additional insurance for clinical liability risks. We may not be able to obtain such insurance or general product liability insurance on acceptable terms or in sufficient amounts. A product liability claim or recall could negatively impact our financial position.

Risks Related to Our Industry

Our success depends upon the continued emergence and growth of markets for analysis of genetic variation and biological function.

We design our products primarily for applications in the life sciences and pharmaceutical industries. The usefulness of our technology depends in part upon the availability of genetic data and its usefulness in identifying or treating disease. We are initially focusing on markets for analysis of genetic variation and biological function, namely gene expression profiling. This market is new and emerging, and may not develop as quickly as we anticipate, or reach its full potential. Other methods of analysis of genetic variation and biological function may emerge and displace the methods we are developing. Also, researchers may not seek or be able to convert raw genetic data into medically valuable information through the analysis of genetic variation and biological function. In addition, factors affecting research and development spending generally, such as changes in the regulatory environment affecting life sciences and pharmaceutical companies, and changes in government programs that provide funding to companies and research institutions, could harm our business. If useful genetic data is not available or if our target markets do not develop in a timely manner, demand for our products may grow at a slower rate than we expect, and we may not be able to achieve or sustain profitability.

We may not be able to deliver acceptable products to our customers due to the rapidly evolving nature of genetic sequence information upon which our products are based.

The genetic sequence information upon which we may rely to develop and manufacture our products is contained in a variety of public and private databases throughout the world. These databases are rapidly expanding and evolving. In addition, the accuracy of such databases and resulting genetic research is dependent on various scientific interpretations, and it is not expected that global genetic research efforts will result in standardized genetic sequence databases for particular genomes in the near future.

Although we have implemented ongoing internal quality control efforts to help ensure the quality and accuracy of our products, the fundamental nature of our products requires us to rely on genetic sequence databases and scientific interpretations which are continuously evolving. As a result, these variables may cause us to develop and manufacture products that incorporate sequence errors or ambiguities. The magnitude and importance of these errors depends on multiple and complex factors that would be considered in determining the appropriate actions required to remedy any inaccuracies. Our inability to timely deliver acceptable products as a result of these factors would likely adversely affect our relationship with customers, and could negatively impact our financial condition.

We face risks associated with technological obsolescence and emergence of standardized systems for genetic analysis.

High throughput genetic analyses and quantitative detection methodologies (including, for example, PCR) is undergoing rapid evolution and technological changes. New technologies, techniques or products could emerge which might allow the packaging and analysis of genomic information at densities similar to, or even higher than, our existing or future technology. Other companies may begin to offer products that are directly competitive with, or are technologically superior to, our products. There can be no assurance that we will be able to maintain our technological advantages over emerging technologies in the future. Over time, we will need to respond to technological innovation in a rapidly changing industry. Standardization of tools and systems for genetic research is still ongoing and there can be no assurance that our products will emerge as the standard for genetic research. The emergence of competing technologies and systems as market standards for genetic research may result in our products becoming uncompetitive which would have an adverse effect on our business.

Our success depends on the continuous development of new products and our ability to manage the transition from our older products to new products.

We compete in markets that are new, intensely competitive, highly fragmented and rapidly changing, and many of our current and potential competitors have significantly greater financial, technical, marketing and other resources than we do. In

[Table of Contents](#)

addition, many current and potential competitors have greater name recognition, more extensive customer bases and access to proprietary genetic content. The continued success of our products will depend on our ability to produce products with smaller feature sizes and create greater information capacity at our current or lower costs. The successful development, manufacture and introduction of our new products is a complicated process and depend on our ability to manufacture and supply enough products in sufficient quantity and quality and at acceptable cost in order to meet customer demand. If we fail to keep pace with emerging technologies or are unable to develop, manufacture and introduce new products, we will become uncompetitive, our pricing and margins will decline, and our business will suffer.

Our failure to successfully manage the transition between our older products and new products may adversely affect our financial results. As we introduce new or enhanced products, we must successfully manage the transition from older products to minimize disruption in customers' ordering patterns, avoid excessive levels of older product inventories and provide sufficient supplies of new products to meet customer demands. When we introduce new or enhanced products, we face numerous risks relating to product transitions, including the inability to accurately forecast demand and difficulties in managing different sales and support requirements due to the type or complexity of the new products.

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

Genetic testing has raised ethical issues regarding privacy and the appropriate uses of the resulting information. For these reasons, governmental authorities and others may call for limits on or regulation of the use of genetic testing or prohibit testing for genetic predisposition to certain conditions, particularly for those that have no known cure. Similarly, such concerns may lead individuals to refuse to use genetics tests even if permissible. Any of these scenarios could reduce the potential markets for our products.

Risks Related to Our Organization

Even though we are not a California corporation, our common stock could still be subject to a number of key provisions of the California General Corporation Law.

Under Section 2115 of the California General Corporation Law ("CGCL"), corporations not organized under California law may still be subject to a number of key provisions of the CGCL. This determination is based on whether the corporation has significant business contacts with California and if more than 50% of its voting securities of record are held by persons having addresses in California. In the immediate future, the majority of our business operations, revenue and payroll will be conducted in, derived from, and paid to residents of California. Therefore, depending on our ownership, we could be subject to some provisions of the CGCL. Among the more important provisions are those relating to the election and removal of directors, cumulative voting, standards of liability and indemnification of directors, distributions, dividends and repurchases of shares, stockholder meetings, approval of some corporate transactions, dissenters' and appraisal rights, and inspection of corporate records. If we are required to comply with these provisions, this compliance could cause us to incur additional administrative and legal expenses and divert our management's time and attention from the operation of our business.

Because we have become public by means of a reverse merger, we may not be able to attract the attention of major brokerage firms.

There may be risks associated with our becoming a public company through a "reverse merger." Securities analysts of major brokerage firms may not provide coverage of us since there is no incentive to brokerage firms to recommend the purchase of our common stock. No assurance can be given that brokerage firms will, in the future, want to conduct any secondary offerings on our behalf. Also, if securities analysts do not cover our common stock, the lack of research coverage may adversely affect its market price.

Risks Related to Our Common Stock

Our common stock has a limited bid history and prospective investors may not be able to resell their shares at their purchase price, if at all.

Our common stock is currently available for trading in the over-the-counter market and is quoted on the OTC Bulletin Board under the symbol "WGBS.OB." Prior to the closing of the Merger, there was no bid history for our common stock and there is no assurance that a regular trading market will develop or, if developed, will be sustained. We may never be able to satisfy

[Table of Contents](#)

the qualitative or quantitative listing requirements for our common stock to be listed on an exchange. These factors may severely limit the liquidity of our common stock and may likely have a material adverse effect on the market price of our common stock and on our ability to raise additional capital.

The market price of the common stock has fluctuated significantly since it was first quoted on the OTC Bulletin Board on June 6, 2007. Since this date, through December 31, 2011, the intra-day trading price has fluctuated from a low of \$0.09 to a high of \$3.15. The price of our common stock may continue to fluctuate significantly in response to factors, some of which are beyond our control, including the following:

- actual or anticipated variations in operating results;
- the limited number of holders of the common stock, and the limited liquidity available through the OTC Bulletin Board;
- changes in financial estimates by securities analysts;
- changes in the economic performance and/or market valuations of other biotechnology companies;
- our announcement of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- additions or departures of key personnel; and
- sales or other transactions involving our capital stock.

Our common stock may be considered “penny stock” and may be difficult to sell.

The SEC has adopted regulations which generally define “penny stock” to be an equity security that has a market price of less than \$5.00 per share or an exercise price of less than \$5.00 per share, subject to specific exemptions. The market price of our common stock is currently less than \$5.00 per share and therefore is designated as a “penny stock” according to SEC rules. This designation requires any broker or dealer selling these securities to disclose some information concerning the transaction, obtain a written agreement from the purchaser and determine that the purchaser is reasonably suitable to purchase the securities. These rules may restrict the ability of brokers or dealers to sell the common stock and may affect the ability of investors to sell their shares. These regulations may likely have the effect of limiting the trading activity of our common stock and reducing the liquidity of an investment in our common stock. In addition, since the common stock is currently traded on the OTC Bulletin Board, investors may find it difficult to obtain accurate quotations of the common stock and may experience a lack of buyers to purchase our stock or a lack of market makers to support the stock price.

Stockholders may experience dilution of their ownership interests because of the future issuance of additional shares of our common stock and our preferred stock.

In the future, we may issue our authorized but previously unissued equity securities, resulting in the dilution of the ownership interests of our present stockholders. We are authorized to issue an aggregate of 310,000,000 shares of capital stock consisting of 300,000,000 shares of common stock, par value \$0.001 per share, of which 41,614,402 shares were issued and outstanding as of December 31, 2011, and 10,000,000 shares of “blank check” preferred stock, par value \$0.001 per share, of which 4,500,000 are designated Series A-1 Convertible Preferred Stock, of which 2,937,499.97 shares are issued and outstanding, and of which 4,500,000 are designated Series A-2 Convertible Preferred Stock, none of which are issued and outstanding. The Series A-1 Preferred Stock and Series A-2 Preferred Stock have preferences and rights as set forth in a certificate of designation. The remaining 1,000,000 shares of preferred stock will have preferences and rights as may be determined by our board of directors at the time of issuance. Specifically, our board of directors has the authority to issue preferred stock without further stockholder approval. As a result, our board of directors could authorize the issuance of a series of preferred stock that would grant to holders the preferred right to our assets upon liquidation, the right to receive dividend payments before dividends are distributed to the holders of common stock and the right to the redemption of the shares, together with a premium, prior to the redemption of common stock. In addition, our board of directors could authorize the issuance of a series of preferred stock that has greater voting power than our common stock or that is convertible into common stock, which could decrease the relative voting power of the common stock or result in dilution to our existing stockholders.

As of December 31, 2011, (i) our 2,937,499.97 outstanding shares of Series A-1 Convertible Preferred Stock, absent the declaration of a dividends totaling \$458,208, presently accrued but unpaid, would have been convertible into 30,253,078 shares of our common stock, (ii) we had outstanding convertible promissory notes with an initial aggregate face value of \$15,275,000,

[Table of Contents](#)

which, after giving effect to interest paid in kind by addition to principal totaling \$460,383, are convertible into 27,605,935 shares of our common stock, (iii) our Malaysian subsidiary had outstanding 4,567,066 CPS not held by the Company which were potentially convertible into an aggregate of 35,836,087 shares of our common stock, and (iv) we had 5,000 outstanding unvested restricted stock units, outstanding options to purchase an aggregate of 4,306,900 shares of our common stock and outstanding warrants and comparable instruments to purchase an aggregate of 73,090,180 shares of our common stock, 8,577,389 shares of which are subject to certain anti-dilution protections against future dilutive events (including the issuance of stock at a price below their exercise price). Further, as of November 27, 2014, 4,701,852 additional shares of our common stock will be issuable upon the conversion of our outstanding shares of Series A-1 Convertible Preferred Stock, assuming maximum accrual of unpaid dividends on such shares of preferred stock after December 31, 2011, and 4,288,329 additional shares of our common stock will be issuable upon the conversion of our outstanding convertible promissory notes, assuming maximum accrual of unpaid interest on such notes after December 31, 2011. The future conversion of debt and exercise of these options and warrants will subject our existing stockholders to experience dilution of their ownership interests.

We may also issue additional shares of common stock or other securities that are convertible into or exercisable for common stock in connection with hiring or retaining employees, future acquisitions, future sales of our securities for capital raising purposes, or for other business purposes. The future issuance of any additional shares of our common stock may create downward pressure on the trading price of our common stock. There can be no assurance that we will not be required to issue additional shares, warrants or other convertible securities in the future in conjunction with any capital raising efforts, including at a price (or exercise prices) below the price at which shares of our common stock are then traded.

Our principal stockholders will have significant voting power and may take actions that may not be in the best interests of other stockholders.

Our officers and directors, and their affiliates, control approximately 14.8% of our outstanding common stock. If all of these stockholders act together, they will be able to exert significant control over our management and affairs requiring stockholder approval, including approval of significant corporate transactions. This concentration of ownership may have the effect of delaying or preventing a change in control and might adversely affect the market price of our common stock. This concentration of ownership may not be in the best interests of all our stockholders.

Stockholders should not anticipate receiving cash dividends on our common stock.

We have never declared or paid any cash dividends or distributions on our capital stock. We currently intend to retain future earnings to support operations and to finance expansion and therefore do not anticipate paying any cash dividends on our common stock in the foreseeable future.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We do not own any real property. Our leased facilities as of December 31, 2011 are as follows:

<u>Location</u>	<u>Square Feet</u>	<u>Primary Use</u>	<u>Lease Terms</u>
Fremont, CA	19,186 sq ft	Corporate Office and Lab	Lease expires April 30, 2015
Fremont, CA	2,708 sq ft	Manufacturing	Leased month to month
Luxembourg	1,000 sq ft	Lab and Office	Leased quarter to quarter
Kulim, Malaysia	5,194 sq ft	Administration and Lab	Lease expires December 31, 2013

Our existing facilities are not being used at full capacity and management believes that these facilities are adequate and suitable for current needs.

Item 3. Legal Proceedings

From time to time we may be involved in claims arising in connection with our business. Based on information currently available, we believe that the amount, or range, of reasonably possible losses in connection with any pending actions against us, in excess of established reserves, in the aggregate, not to be material to our consolidated financial condition or cash flows. However, losses may be material to the Company's operating results for any particular future period, depending on the level of income for such period.

Item 4. Mine Safety Disclosures

Not applicable.

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

Our common stock is currently quoted on the OTC Bulletin Board maintained by the NASD under the symbol WGBS.OB. The transfer agent for our common stock is Continental Stock Transfer and Trust Company at 17 Battery Place, New York, NY 10004.

The following table sets forth the high and low intra-day bid information for our common stock for the fiscal quarters indicated as reported on the OTC Bulletin Board. The quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not represent actual transactions.

	High	Low
2010		
First Quarter ended March 31, 2010	2.97	1.90
Second Quarter ended June 30, 2010	3.15	1.12
Third Quarter ended September 30, 2010	1.69	0.92
Fourth Quarter ended December 31, 2010	1.83	1.06
2011		
First Quarter ended March 31, 2011	1.33	0.80
Second Quarter ended June 30, 2011	1.04	0.42
Third Quarter ended September 30, 2011	0.67	0.26
Fourth Quarter ended December 31, 2011	0.42	0.09

Our common stock is thinly traded and any reported sale prices may not be a true market-based valuation of our common stock. On December 31, 2011, the closing bid price of our common stock, as reported on the OTC Bulletin Board, was \$0.16.

As of March 21, 2012, there were approximately 126 holders of record of our common stock.

Trades in our common stock may be subject to Rule 15c-9 under the Exchange Act, which imposes requirements on broker/dealers who sell securities subject to the rule to persons other than established customers and accredited investors. For transactions covered by the rule, broker/dealers must make a special suitability determination for purchasers of the securities and receive the purchaser's written agreement to the transaction before the sale.

The SEC also has rules that regulate broker/dealer practices in connection with transactions in "penny stocks." Penny stocks generally are equity securities with a price of less than \$5.00 (other than securities listed on some national exchanges, provided that the current price and volume information with respect to transactions in that security is provided by the applicable exchange or system). The penny stock rules require a broker/dealer, before effecting a transaction in a penny stock not otherwise exempt from the rules, to deliver a standardized risk disclosure document prepared by the SEC that provides information about penny stocks and the nature and level of risks in the penny stock market. The broker/dealer also must provide the customer with current bid and offer quotations for the penny stock, the compensation of the broker/dealer and its salesperson in the transaction, and monthly account statements showing the market value of each penny stock held in the customer's account. The bid and offer quotations, and the broker/dealer and salesperson compensation information, must be given to the customer orally or in writing before effecting the transaction, and must be given to the customer in writing before or with the customer's confirmation. These disclosure requirements may have the effect of reducing the level of trading activity in the secondary market for shares of common stock.

Dividend Policy

We have never declared or paid dividends on shares of our common stock. We intend to retain future earnings, if any, to support the development of our business and therefore do not anticipate paying cash dividends for the foreseeable future. Payment of future dividends, if any, will be at the discretion of our board of directors after taking into account various factors, including current financial condition, operating results and current and anticipated cash needs.

Securities Authorized for Issuance under Equity Compensation Plans

Information relating to our equity compensation plans is incorporated by reference to the definitive proxy statement for our 2012 annual meeting of stockholders. Additional information regarding our equity compensation plans is provided in Note 8 to our Consolidated Financial Statements in Part II, Item 8 in this Annual Report.

Recent Sales of Unregistered Securities

Information with respect to equity securities of the Company sold by the Company during the period covered by this Annual Report that were not registered under the Securities Act has previously been provided in the Company's Quarterly Report on Forms 10-Q, including the Form 10-Q filed with the Securities and Exchange Commission on November 21, 2011.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

This discussion should be read in conjunction with the other sections of this Report, including Item 1 and Item 8 and the related exhibits. The various sections of this discussion contain a number of forward-looking statements, all of which are based on our current expectations and could be affected by the uncertainties and risk factors described throughout this Annual Report on Form 10-K. See "Cautionary Factors That May Affect Future Results." Our actual results may differ materially.

Company Overview

Since beginning operations in 2003, we have been engaged in the development, manufacture and sale of systems for gene expression, genotyping and stem-cell research for the life sciences, pharmaceutical drug discovery and biomarker discovery and diagnostic products industries. Our products are aimed at professionals who perform genetic analysis and cell biology, primarily at pharmaceutical and biotech companies, academic and private research centers and diagnostics companies involved in biomarker research. We plan to provide new performance standards with significant savings of time and cost for professionals in the field of gene expression research and to facilitate biomarker discovery, toxicology and clinical research through the SmartChip products and services.

Our revenue is subject to fluctuations due to the timing of sales of high-value products and service projects, the impact of seasonal spending patterns, the timing and size of research projects our customers perform, changes in overall spending levels in the life science industry and other unpredictable factors that may affect customer ordering patterns. Any significant delays in the commercial launch or any lack or delay of commercial acceptance of new products, unfavorable sales trends in existing product lines, or impacts from the other factors mentioned above, could adversely affect our revenue growth or cause a sequential decline in quarterly revenue. Due to the possibility of fluctuations in our revenue and net income or loss, we believe that quarterly comparisons of operating results are not a good indication of future performance.

Since inception, we have incurred substantial operating losses. As of December 31, 2011, our accumulated deficit was \$56,395,235. Losses have principally occurred as a result of the substantial resources required for the research, development and manufacturing scale-up effort required to commercialize our initial products and services. We expect to continue to incur substantial costs for research and development activities for at least the next year as we enhance our efforts to support our new strategy of engaging key opinion leaders in the life science research market to address its rapidly changing needs and to anticipate its future needs.

We expect that the cash we have available will fund our operations at least into the second quarter of 2013. We are currently considering several different financing alternatives to support the Company's operations thereafter. If we are unable to obtain such additional financing on a timely basis, we may have to curtail our development activities and growth plans and/or be forced to sell assets, perhaps on unfavorable terms, which would have a material adverse effect on our business, financial condition and results of operations, and ultimately could be forced to discontinue our operations and liquidate, in which event it is unlikely that stockholders would receive and distribution on their shares. See "Liquidity and Capital Resources" below.

Results of Operations**Year Ended December 31, 2011 Compared to Year Ended December 31, 2010**

The following table presents selected items in our condensed consolidated statements of operations for the years ended December 31, 2011 and 2010, respectively:

	Year Ended December 31,	
	2011	2010
Revenue	\$ 522,931	\$ 2,167,289
Cost of revenue	1,401,904	862,066
Gross profit (loss)	(878,973)	1,305,223
Operating expenses:		
Sales and marketing	3,311,433	2,072,611
Research and development	8,290,550	6,714,340
General and administrative	6,221,884	5,097,797
Total operating expenses	17,823,867	13,884,748
Operating loss	(18,702,840)	(12,579,525)
Other income and (expenses):		
Interest income	15,218	17,536
Interest expense	(3,336,217)	(31,329)
Gain on revaluation of derivative liabilities, net	9,271,985	643,711
Liquidated damages for late S-1 registration	(532,161)	—
Miscellaneous income (expense)	166,184	(137,774)
Total other income and (expenses)	5,585,009	492,144
Net loss before provision for income taxes	(13,117,831)	(12,087,381)
Provision for income taxes	27,247	—
Net loss	\$ (13,145,078)	\$ (12,087,381)

Revenue

The following table represents our revenue for the years ended December 31, 2011 and 2010:

	Year Ended December 31,		
	2011	2010	% Change
	\$ 522,931	\$ 2,167,289	(76)%

For the year ended December 31, 2011, revenue decreased by \$1,644,358, or 76%, as compared to the year ended December 31, 2010. The decrease is primarily due to decreases in sales SmartChip Real-Time PCR Systems, Real-Time PCR Chip panels and SmartSlide™ products, which we no longer market and that accounted for 8% of our revenue in the year ended December 31, 2010, as well as decreases in fees from our Fee-for-Service business.

In the year ended December 31, 2011, commercialization efforts for the SmartChip Real-Time PCR Systems product line did not produce meaningful results because of the relatively small amount of sales and marketing resources, more entrenched competition, the limited number of applications, the length of the sales cycle and the small installed base of systems from which to generate recurring revenue from consumables.

Cost of Revenue

The following table represents our cost of revenue for the years ended December 31, 2011 and 2010:

	Year Ended December 31,		
	2011	2010	% Change
\$	1,401,904	\$ 862,066	63%

Cost of revenue includes the cost of products paid to third party vendors and raw materials, labor and overhead for products manufactured internally, and reserves for warranty and inventory obsolescence. For the year ended December 31, 2011, cost of revenue increased by \$539,838, or 63%, as compared to the year ended December 31, 2010. The increase related primarily to added provisions for excess inventory of \$1,171,220, offset by decreases in revenue in the year ended December 31, 2011.

Sales and Marketing Expenses

The following table represents our sales and marketing expenses for the years ended December 31, 2011 and 2010:

	Year Ended December 31,		
	2011	2010	% Change
\$	3,311,433	\$ 2,072,611	60%

Sales and marketing expenses consist primarily of compensation cost of our sales and marketing team, commissions, and the costs associated with various marketing programs. For the year ended December 31, 2011, sales and marketing expenses increased by \$1,238,822, or 60%, as compared to the year ended December 31, 2010. The increase resulted primarily from increases in salaries and wages, which arose due to an increase in the average head count of sales and marketing employees during the year.

We expect sales and marketing expenses will decrease in the near future as we establish the commercial viability of our SmartChip products and services through cooperation with key opinion leaders, and subsequently to rise as the number of sales personnel, and their commissions, increase.

Research and Development Expenses

The following table represents our research and development expenses for the years ended December 31, 2011 and 2010:

	Year Ended December 31,		
	2011	2010	% Change
\$	8,290,550	\$ 6,714,340	23%

Research and development expenses consist primarily of salaries and other personnel-related expenses, laboratory supplies and other expenses related to the design, development, testing and enhancement of our products. Research and development expenses are expensed as they are incurred. For the year ended December 31, 2011, research and development expenses increased \$1,576,210, or 23%, as compared to the year ended December 31, 2010. The increase resulted primarily from increases in salaries and wages, bonuses, consulting costs and depreciation of equipment, and the absence of the receipt of a Section 48D award of approximately \$244,000 from the Internal Revenue Service, which offset costs in 2010.

We believe a substantial investment in research and development is essential in the long term to remain competitive and expand into additional markets. Accordingly, we expect our research and development expenses to remain at a high level of total expenditures as we grow.

[Table of Contents](#)

General and Administrative Expenses

The following table represents our general and administrative expenses for the years ended December 31, 2011 and 2010:

	Year Ended December 31,		
	2011	2010	% Change
\$	6,221,884	\$ 5,097,797	22%

General and administrative expenses consist primarily of personnel costs for finance, human resources, business development, and general management, as well as professional fees, such as expenses for legal and accounting services. For the year ended December 31, 2011, general and administrative expenses increased \$1,124,087, or 22%, as compared to the year ended December 31, 2010. The increase resulted primarily from increases in salaries and wages, bonuses, severance costs, recruitment costs, and costs primarily incurred in conjunction with the May 2011 Private Placement, offset by a reduction in stock compensation costs.

We expect our general and administrative expenses to be lower in 2012 due to reduced consultancy and other outside service costs.

Interest Income

The following table represents our interest income for the years ended December 31, 2011 and 2010:

	Year Ended December 31,		
	2011	2010	% Change
\$	15,218	\$ 17,536	(13)%

Interest income is solely earned on cash balances held in interest-bearing bank accounts. For the year ended December 31, 2011, interest income decreased \$2,318, or 13%, as compared to the year ended December 31, 2010. The decrease was mainly due to lower interest rates, offset by an increase in the average cash invested in interest-bearing accounts.

Interest Expense

The following table represents our interest expense for the years ended December 31, 2011 and 2010:

	Year Ended December 31,		
	2011	2010	% Change
\$	3,336,217	\$ 31,329	10,549%

For the year ended December 31, 2011, interest expense increased \$3,304,888, or 10,549%, as compared to the year ended December 31, 2010. The increase was mostly due to interest related to the convertible promissory notes in the aggregate principal amount of \$15,275,000 issued in the May 2011 Private Placement, which in the year ended December 31, 2011, included a one-time non-cash interest expense of \$2,255,074 (see Note 5 to the Consolidated Financial Statements in Part II, Item 8). The increase in the year ended December 31, 2011, was also due to the term loan of \$2,000,000 obtained in December 2010 and repaid in May 2011, incurring costs of \$222,275 in accelerated deferred financing costs plus \$83,585 arising due to early repayment. Interest expense (which includes the amortization of debt discount and loan origination fees) will decrease in the year ended December 31, 2012, mainly because the non-cash interest expense of \$2,255,074 was a one-off charge in 2011. However, we expect that the 5% interest on the convertible promissory notes being converted to additional principal, along with the effective yield amortization of debt discount, which weights the interest charges towards the latter stages of their contractual term, will result in interest expense of approximately \$2.1 million in 2012, with increased expense in 2013 and 2014.

Gain on Revaluation of Derivative Liabilities, net

The following table represents the gain on revaluation of derivative liabilities, net for the years ended December 31, 2011 and 2010:

	Year Ended December 31,		
	2011	2010	% Change
\$	9,271,985	\$ 643,711	1,340%

Our derivative liabilities arise due to the variable number of shares of our common stock that may be issued upon the exercise of those warrants with certain anti-dilution protection, upon the exchange of Series A and Series B CPS of our Malaysian subsidiary, and under the conversion element of our convertible promissory notes.

The net gain from revaluation of derivative liabilities for the year ended December 31, 2011, was \$9,271,985, compared to \$643,711 for the year ended December 31, 2010. Gains and losses are directly attributable to revaluations of all of our derivatives and result primarily from a net decrease or increase, respectively, in our stock price in the period. Our closing stock price was \$0.16 on December 31, 2011, compared to \$1.22 on December 31, 2010, and \$0.68 on May 27, 2011, when our convertible promissory notes were issued. We recorded a charge of approximately \$1.2 million on December 31, 2011, when the lapse of the redemption option on the Series B CPS of our Malaysian subsidiary caused the derivative liability arising on the conversion element to increase.

Future gains or losses on revaluation will result primarily from net decreases or increases, respectively, in our stock price during the reporting period. Derivative liabilities will also decrease as the remaining term of each instrument diminishes.

Liquidated Damages for Late S-1 Registration

The following table presents the liquidated damages we incurred for the years ended December 31, 2011 and 2010, due to the late registration of certain shares issuable in connection with the May 2011 Private Placement:

	Year Ended December 31,		
	2011	2010	% Change
\$	532,161	—	N/A

Liquidated damages were incurred as a result of the delayed effectiveness of our registration statement associated with the May 2011 Private Placement. Under the terms of the applicable registration rights agreement, we had until October 11, 2011, to have our initial registration statement declared effective by the SEC. We exceeded that time frame and were obligated to pay liquidated damages of approximately 1.8% of the gross funds received in the May 2011 Private Placement. No comparable costs are expected in the foreseeable future.

Miscellaneous Income (Expense)

The following table represents our miscellaneous income (expense) for the years ended December 31, 2011 and 2010:

	Year Ended December 31,		
	2011	2010	% Change
\$	166,184	\$ (137,774)	N/A

For the year ended December 31, 2011, we recorded miscellaneous income of \$166,184, compared to an expense of \$137,774 for the year ended December 31, 2010. Miscellaneous income and expense is the result of net foreign currency exchange gains and losses, mainly in our Malaysian subsidiary, WGBM, principally due to revaluation of the inter-company account at the balance sheet date. WGBM presently has a net receivable on its dollar denominated balances, so if the value of the Malaysian Ringgit decreases against the dollar, income is recorded, whereas if it increases against the dollar, an expense is recorded. Foreign currency exchange gains and losses also arise on our subsidiary in Luxembourg, and on U.S. expenses denominated in foreign currencies.

[Table of Contents](#)

Provision for Income Taxes

The following table presents the provision for income taxes for the years ended December 31, 2011 and 2010, respectively:

		Year Ended December 31,		
		2011	2010	% Change
\$		27,247	\$ —	N/A

For the year ended December 31, 2011, we recorded a charge of \$27,247 for income taxes. This charge represents the amount of Malaysian taxes payable on interest income, mostly due to a loan to the U.S. parent. We have provided a full valuation allowance against our net deferred tax assets.

Liquidity and Capital Resources

From inception through December 31, 2011, the Company raised a total of \$3,665,991 from the issuance of notes payable, \$66,037 from the sale of Series A Preferred Stock, \$1,559,942 from the sale of Series B Preferred Stock, \$31,226,191, net of offering costs, from the sale of common stock and warrants, \$8,842,256, net of offering costs, from the sale of CPS of our Malaysian subsidiary, \$1,842,760, net of origination fees, from a secured term loan, and \$27,492,876, net of offering costs and liquidated damages for late registration, from the sale of the Series A-1 Convertible Preferred Stock, convertible promissory notes and warrants in the May 2011 Private Placement. As of December 31, 2011, we had \$15,117,172 in unrestricted cash and cash equivalents, and working capital of \$13,976,290.

Net Cash Used in Operating Activities

The Company experienced negative cash flow from operating activities for the years ended December 31, 2011 and 2010 in the amounts of \$17,087,267 and \$12,809,247, respectively. The cash used in operating activities in the year ended December 31, 2011, was due to cash used to fund a net loss of \$13,145,078, adjusted for non-cash expenses related to depreciation and amortization, stock-based compensation, liquidated damages for late S-1 registration, exchange gain on issuance of Series C CPS of our Malaysian subsidiary, gains on revaluation of derivative liabilities, excess debt discount expensed as interest, inventory provision and amortization of debt discount totaling \$3,764,088, and cash used by a change in working capital of \$178,101. The cash used in operating activities in the year ended December 31, 2010, was due to cash used to fund a net loss of \$12,087,381, adjusted for non-cash expenses related to depreciation and amortization, stock-based compensation, gains on revaluation of warrants and on the conversion element of Series B CPS of our Malaysian subsidiary, exchange loss on issuance of Series B CPS of our Malaysian subsidiary and inventory provision totaling \$1,076,571, and cash used by a change in working capital of \$1,798,437. The increase in cash used in the year ended December 31, 2011 compared to 2010 was driven primarily by the increase in the net operating loss from \$12,579,525 to \$18,702,840 and an increase in expenditure on inventory, offset by the collection of trade receivables.

Net Cash Used in Investing Activities

The Company used \$621,120 in the year ended December 31, 2011, and \$1,120,808 in the year ended December 31, 2010, to acquire property and equipment, mostly for use in research and development activities.

Net Cash Provided by Financing Activities

Cash provided by financing activities in the year ended December 31, 2011, was \$30,826,877. Our Malaysian subsidiary received \$5,052,303, including an exchange gain and net of issuance costs, in exchange for the issuance of 3,233,734 Series C CPS, and we received \$27,492,876, net of issuance costs and liquidated damages paid for late S-1 registration, from the issuance of Series A-1 Convertible Preferred Stock, convertible promissory notes and warrants in the May 2011 Private Placement and \$9,200 from the exercise of stock options. In addition, interest of \$460,383 was paid in kind by addition to the principal amount of convertible promissory notes. This was offset by payments of \$8,852 on capital lease obligations, \$448 in income taxes for restricted stock forfeited and \$2,178,585 to extinguish all liabilities under a term loan.

Cash provided by financing activities in the year ended December 31, 2010, was \$9,977,729. We received net cash of \$47,901 (after offering expenses of \$65,874 and a selling agent commission of \$9,225) from the final tranche of the sale in a private placement offering of 82,000 shares of common stock and warrants to purchase 20,500 shares of common stock with

[Table of Contents](#)

an exercise price of \$2.50 per share. We also received net cash of \$6,823,472 (after offering expenses of \$134,328 and a selling agent commission of \$244,200) from the sale in a private placement offering of 6,001,667 shares of common stock and warrants to purchase 3,000,830 shares of common stock with an exercise price of \$1.55 per share. Our Malaysian subsidiary received \$733,066, net of issuance costs and a currency exchange loss, in exchange for the issuance of 333,333 Series B CPS. We also received \$43,122 from the exercise of stock options and \$562,500 from the exercise of warrants. In addition, we received \$1,842,760 (net of issuance costs of \$157,240) from a term loan. This was offset by payments of \$21,663 on capital lease obligations, \$44,793 in income taxes for restricted stock forfeited and \$8,636 in costs for issuing common stock in exchange for Series B CPS of our Malaysian subsidiary.

Availability of Additional Funds

We believe funds available at December 31, 2011, along with our revenue, will fund our operations at least into the second quarter of 2013. We expect we will need to raise further capital, through the entry into a debt facility, the sale of additional securities or otherwise, to support our future operations. Our operating needs include the planned costs to operate our business, including amounts required to fund working capital and capital expenditures. At the present time, we have no material commitments for capital expenditure. Our future capital requirements and the adequacy of our available funds will depend on many factors, including our ability to successfully commercialize our SmartChip products and services, competing technological and market developments, and the need to enter into collaborations with other companies or acquire other companies or technologies to enhance or complement our product and service offerings.

While we believe we have sufficient cash to fund our operating, investing, and financing activities in the near term, we expect that additional working capital will be needed to sustain our operations. We may be unable to raise sufficient additional capital when we need it or to raise capital on favorable terms. The conversion of our convertible promissory notes and CPS of our Malaysian subsidiary, and the sale of equity or convertible debt securities in the future, may be dilutive to our stockholders, and debt financing arrangements may require us to pledge certain assets and enter into covenants that could restrict certain business activities or our ability to incur further indebtedness, and may contain other terms that are not favorable to us or our stockholders. If we are unable to obtain adequate funds on reasonable terms, we may be required to curtail operations significantly or to obtain funds by entering into financing agreements on unattractive terms.

Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, result of operations, liquidity, capital expenditures or capital resources that is material to stockholders.

Critical Accounting Policies and Estimates

Deferred Tax Valuation Allowance. We believe sufficient uncertainties exist regarding the future realization of deferred tax assets, and, accordingly, a full valuation allowance is required, amounting to approximately \$24,700,000 at December 31, 2011. In subsequent periods, if and when we generate pre-tax income, a tax expense will not be recorded to the extent that the remaining valuation allowance can be used to offset that expense. Once a consistent pattern of pre-tax income is established or other events occur that indicate that the deferred tax assets will be realized, additional portions or all of the remaining valuation allowance will be reversed back to income. Should we generate pre-tax losses in subsequent periods, a tax benefit will not be recorded and the valuation allowance will be increased.

Inventory Valuation. Inventories are stated at the lower of cost and market value. We perform a detailed assessment of inventory on a regular basis, which includes, among other factors, a review of projected demand requirements, product pricing, product expiration and product lifecycle. As a result of this assessment, we record provisions for potentially excess, obsolete or impaired goods, when appropriate, in order to reduce the reported amount of inventory to its net realizable value. If actual demand and market conditions are less favorable than those projected by management, additional inventory write-downs may be required.

Warranty Reserve. Our standard warranty agreement is one year from shipment for SmartChip cyclers and nano-dispensers. We accrue for anticipated warranty costs upon shipment of these products. Our warranty reserve is based on management's judgment regarding anticipated rates of warranty claims and associated repair costs, and we update our assessment quarterly.

Stock-Based Compensation. We measure the fair value of all stock option and restricted stock awards to employees on the grant date, and record the fair value of these awards, net of estimated forfeitures, as compensation expense over the service

[Table of Contents](#)

period. The fair value of options is estimated using the Black-Scholes valuation model, and of restricted stock is based on the Company's closing share price on the measurement date. Amounts expensed with respect to options were \$443,324 and \$525,712, net of estimated forfeitures, for the years ended December 31, 2011 and 2010, respectively. These sums exclude the compensation expense for restricted stock awards, for which the fair value is based on our closing stock price on the grant date for directors and employees, and on the dates on which performance of services is recognized for consultants.

The weighted-average grant date fair value of options awarded in the years ended December 31, 2011 and 2010, respectively, were \$0.29 and \$0.70. These fair values were estimated using the following assumptions:

	Year Ended December 31,	
	2011	2010
Risk-free interest rate	0.79% - 2.24%	1.05% - 2.51%
Expected term	4.75 Years	4.75 Years
Expected volatility	42.44% - 66.83%	42.40% - 43.01%
Dividend yield	0%	0%

Risk-Free Interest Rate. This is the U.S. Treasury rate for the day of the grant having a term equal to the expected term of the option. An increase in the risk-free interest rate will increase the fair value and the related compensation expense.

Expected Term. This is the period of time over which the award is expected to remain outstanding and is based on management's estimate, taking into consideration the vesting terms, the contractual life, and historical experience. An increase in the expected term will increase the fair value and the related compensation expense.

Expected Volatility. This is a measure of the amount by which the Company's common stock price has fluctuated or is expected to fluctuate. To the extent that Company's common stock has not been traded for as long as the expected remaining term of the options, the Company uses a weighted-average of the historic volatility of a group of publicly traded companies over the retrospective period corresponding to the expected remaining term of the options on the measurement date. The group of publicly traded companies is selected from the same industry or market index, with extra weighting attached to those companies most similar in terms of business activity, size and financial leverage. To the extent that the Company's common stock has been traded for longer than the expected remaining term of the options, this weighted average is used to determine 50% of the volatility, with the Company's own historic volatility used to determine the remaining 50%. An increase in the expected volatility will increase the fair value and the related compensation expense.

Dividend Yield. We have not made any dividend payments and do not plan to pay dividends in the foreseeable future. An increase in the dividend yield will decrease the fair value and the related compensation expense.

Derivative Liabilities. Our derivative liabilities arise due to the variable number of shares of our common stock that may be issued upon the exercise of those warrants with certain anti-dilution protection, upon the exchange of Series A and Series B CPS of our Malaysian subsidiary, and under the conversion element of our convertible promissory notes. We evaluate the liability for all of our derivatives using a Monte Carlo Simulation approach, using critical assumptions provided by management reflecting conditions at the valuation dates.

The fair value of the derivative liability for the conversion element of convertible promissory notes at December 31, 2011, included assumptions of the fair value of common stock of \$0.16, estimated volatility of 82.82%, a risk-free interest rate of 0.18% and a contractual term of 2.91 years, and was estimated to be \$1,931,295. The fair value of this derivative liability when the notes were issued May 27, 2011, included assumptions of the fair value of common stock of \$0.68, estimated volatility of 64.31%, a risk-free interest rate of 0.21% and a contractual term of 3.5 years, and was estimated to be \$11,495,163.

The fair value of the derivative liability for warrants at December 31, 2011, included assumptions of the fair value of common stock of \$0.16, estimated volatilities of 80.66% to 85.13%, risk-free interest rates of 0.16% to 0.32% and estimated remaining terms of 1.25 to 2.39 years; the total fair value was estimated to be \$655,219. The fair value of this derivative liability at December 31, 2010, included assumptions of the fair value of common stock of \$1.22, estimated volatilities of 67.61% to 86.53%, risk-free interest rates of 0.57% to 1.15% and estimated remaining terms of 1.91 to 3.18 years; the total fair value was estimated to be \$2,240,962.

The fair value of the derivative liability for the conversion element of Series B CPS of our Malaysian subsidiary at December 31, 2011, included assumptions of the fair value of common stock of \$0.16, estimated volatility of 81.69%, a risk-free interest rate of 0.28% and an estimated remaining term (following lapse of the redemption option) of 1.81 years, and was

[Table of Contents](#)

estimated to be \$1,245,101. The fair value of this derivative liability at December 31, 2010, included assumptions of the fair value of common stock of \$1.22, estimated volatility of 55.40%, a risk-free interest rate of 0.07% and an expected term (prior to lapse of the redemption option) of one day, and was estimated to be \$194,088.

The fair value of the derivative liability for Series A CPS of our Malaysian subsidiary at December 31, 2011, included assumptions of the fair value of common stock of \$0.16, estimated volatilities of 81.15% to 82.83%, risk-free interest rate of 0.28% and estimated remaining terms of 1.55 to 1.90 years; the total fair value was estimated to be \$2,135,715. The fair value of this derivative liability at December 9, 2011, when terms were amended giving rise to the derivative liability, included assumptions of the fair value of common stock of \$0.16, estimated volatilities of 78.02% to 80.22%, risk-free interest rates of 0.27% and estimated remaining terms of 1.61 to 1.96 years; the total fair value was estimated to be \$2,198,828.

Risk-Free Interest Rate. This is the U.S. Treasury rate for the measurement date having a term equal to the weighted average expected remaining term of the instrument. An increase in the risk-free interest rate will increase the fair value and the associated derivative liability.

Expected Remaining Term. This is the period of time over which the instrument is expected to remain outstanding and is based on management's estimate, taking into consideration the remaining contractual life, and historical experience. For our convertible promissory notes, we consider a blend of expected remaining terms prior to partial conversion into the Company's Series A-2 Convertible Preferred Stock, giving consideration to the likelihood of conversion under various scenarios, and a further blend of expected remaining terms prior to partial conversion into common stock, all based on management's projections of when such conversions would occur within the contractual term. An increase in the expected remaining term will increase the fair value and the associated derivative liability.

Expected Volatility. This is a measure of the amount by which the Company's common stock price has fluctuated or is expected to fluctuate. To the extent that Company's common stock has not been traded for as long as the expected remaining term of the instrument, the Company uses a weighted-average of the historic volatility of a group of publicly traded companies over the retrospective period corresponding to the expected remaining term of the instrument on the measurement date. The group of publicly traded companies is selected from the same industry or market index, with extra weighting attached to those companies most similar in terms of business activity, size and financial leverage. To the extent that the Company's common stock has been traded for longer than the expected remaining term of the instrument, this weighted average is used to determine 50% of the volatility, with the Company's own historic volatility used to determine the remaining 50%. An increase in the expected volatility will increase the fair value and the associated derivative liability.

Dividend Yield. We have not made any dividend payments and do not plan to pay dividends in the foreseeable future. An increase in the dividend yield will decrease the fair value and the associated derivative liability.

Contractual Obligations

In October, 2009, the Company signed an operating lease for 19,186 square feet of office and laboratory space for our headquarters in Fremont, California, covering the period November 1, 2009 through April 30, 2015, with no rent payable for the first six months. The total expenditure commitment was approximately \$2.21 million (of which \$1.56 million remained as at December 31, 2011), plus maintenance fees.

Recently Issued Accounting Pronouncements

See the "Recent Accounting Pronouncements" in Note 2 to the Consolidated Financial Statements in Part II, Item 8 for information related to the adoption of new accounting standards in 2011, none of which had a material impact on our financial statements, and the future adoption of recently issued accounting pronouncements, which we do not expect will have a material impact on our financial statements.

Cautionary Factors That May Affect Future Results

This Report and other written reports and oral statements made from time to time by the Company may contain so-called "forward-looking statements," all of which are subject to risks and uncertainties. One can identify these forward-looking statements by their use of words such as "expects," "plans," "will," "estimates," "forecasts," "projects" and other words of similar meaning. One can identify them by the fact that they do not relate strictly to historical or current facts. These statements are likely to address the Company's growth strategy, financial results and product and development programs.

[Table of Contents](#)

One must carefully consider any such statement and should understand that many factors could cause actual results to differ from the Company's forward-looking statements. These factors include inaccurate assumptions and a broad variety of other risks and uncertainties, including some that are known and some that are not. No forward-looking statement can be guaranteed and actual future results may vary materially.

Information regarding market and industry statistics contained in this Report is included based on information available to the Company that it believes is accurate. It is generally based on industry and other publications that are not produced for purposes of securities offerings or economic analysis. The Company has not reviewed or included data from all sources, and cannot assure investors of the accuracy or completeness of the data included in this Report. Forecasts and other forward-looking information obtained from these sources are subject to the same qualifications and the additional uncertainties accompanying any estimates of future market size, revenue and market acceptance of products and services. The Company does not assume the obligation to update any forward-looking statement. You should carefully evaluate such statements in light of factors described in the Company's filings with the SEC, especially on Forms 10-K, 10-Q and 8-K. In various filings the Company has identified important factors that could cause actual results to differ from expected or historic results. You should understand that it is not possible to predict or identify all such factors. Consequently, the reader should not consider any such list to be a complete list of all potential risks or uncertainties.

Item 8. Financial Statements and Supplementary Data

Index to Consolidated Financial Statements	Page
Report of Independent Registered Public Accounting Firm	35
Consolidated Balance Sheets	37
Consolidated Statements of Operations	38
Consolidated Statements of Comprehensive Income (Loss)	39
Consolidated Statements Stockholders' Equity (Deficit)	40
Consolidated Statements of Cash Flows	42
Notes to the Consolidated Financial Statements	43

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
WaferGen Bio-systems, Inc.:

We have audited the accompanying consolidated balance sheet of WaferGen Bio-systems, Inc. and subsidiaries (collectively, the “Company”) as of December 31, 2011, and the related consolidated statements of operations, comprehensive income (loss), stockholders’ equity (deficit), and cash flows for the year 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 audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides 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 WaferGen Bio-systems, Inc. and subsidiaries as of December 31, 2011, and the results of their operations and their cash flows for the year then ended, in conformity with U.S. generally accepted accounting principles.

/s/ SingerLewak LLP

San Jose, California
March 23, 2012

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of
WaferGen Bio-systems, Inc.:

We have audited the accompanying consolidated balance sheet of WaferGen Bio-systems, Inc. (the “Company”) as of December 31, 2010, and the related consolidated statements of operations, comprehensive income (loss), stockholders’ equity (deficit), and cash flows for the year then ended. These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis of designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides 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, 2010, and the results of their operations and their cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

/s/ Rowbotham & Company LLP

San Francisco, California
March 31, 2011 (except for Notes 1 and 2 for which the date is March 23, 2012)

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Consolidated Balance Sheets

	<u>December 31, 2011</u>	<u>December 31, 2010</u>
Assets		
Current assets:		
Cash and cash equivalents	\$ 15,117,172	\$ 2,209,941
Restricted cash	—	100,651
Accounts receivable, net of zero allowance for doubtful accounts	29,382	778,769
Inventories, net	745,008	1,024,250
Prepaid expenses and other current assets	186,138	176,259
Total current assets	16,077,700	4,289,870
Property and equipment, net	1,714,090	1,191,840
Other assets	852,093	334,855
Total assets	\$ 18,643,883	\$ 5,816,565
Liabilities and Stockholders' Equity (Deficit)		
Current liabilities:		
Accounts payable	\$ 772,411	\$ 1,196,861
Accrued payroll and related costs	646,715	440,101
Other accrued expenses	682,284	453,497
Current portion of long-term debt	—	419,384
Total current liabilities	2,101,410	2,509,843
Long-term debt, net of current portion	1,405,967	1,589,468
Derivative liabilities	5,967,330	2,435,050
Total liabilities	9,474,707	6,534,361
Series A and B redeemable convertible preference shares of subsidiary	—	3,337,476
Commitments and contingencies (Notes 5 and 16)	—	—
Stockholders' equity (deficit):		
Series A, B and C convertible preference shares of subsidiary	6,117,134	—
Preferred Stock, \$0.001 par value, 10,000,000 shares authorized, 2,937,500 shares issued and outstanding at December 31, 2011	9,838,569	—
Common Stock: \$0.001 par value; 300,000,000 shares authorized; 41,619,402 and 41,175,464 shares issued and outstanding at December 31, 2011 and December 31, 2010	41,619	41,175
Additional paid-in capital	49,504,516	38,881,075
Accumulated deficit	(56,395,235)	(43,265,399)
Accumulated other comprehensive income	62,573	287,877
Total stockholders' equity (deficit)	9,169,176	(4,055,272)
	\$ 18,643,883	\$ 5,816,565

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

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Consolidated Statements of Operations

	Year Ended December 31,	
	2011	2010
Revenue	\$ 522,931	\$ 2,167,289
Cost of revenue	1,401,904	862,066
Gross profit (loss)	(878,973)	1,305,223
Operating expenses:		
Sales and marketing	3,311,433	2,072,611
Research and development	8,290,550	6,714,340
General and administrative	6,221,884	5,097,797
Total operating expenses	17,823,867	13,884,748
Operating loss	(18,702,840)	(12,579,525)
Other income and (expenses):		
Interest income	15,218	17,536
Interest expense (including excess debt discount of \$2,255,074 expensed as interest in the year ended December 31, 2011)	(3,336,217)	(31,329)
Gain on revaluation of derivative liabilities, net	9,271,985	643,711
Liquidated damages for late S-1 registration	(532,161)	—
Miscellaneous income (expense)	166,184	(137,774)
Total other income and (expenses)	5,585,009	492,144
Net loss before provision for income taxes	(13,117,831)	(12,087,381)
Provision for income taxes	27,247	—
Net loss	(13,145,078)	(12,087,381)
Accretion on Series A and B convertible preference shares of subsidiary associated with premium	15,242	(286,948)
Accretion on Series B redeemable convertible preference shares of subsidiary associated with bifurcation of conversion element	—	(428,787)
Accretion on Series A-1 Convertible Preferred Stock associated with beneficial conversion feature	(9,250,009)	—
Series A-1 preferred dividend	(458,208)	—
Net loss attributable to common stockholders	\$ (22,838,053)	\$ (12,803,116)
Net loss per share - basic and diluted	\$ (0.55)	\$ (0.35)
Shares used to compute net loss per share - basic and diluted	41,455,980	37,070,406

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

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Consolidated Statements of Comprehensive Income (Loss)

	Year Ended December 31,	
	2011	2010
Net loss	\$ (13,145,078)	\$ (12,087,381)
Foreign currency translation adjustments	(225,304)	224,496
Total comprehensive loss	<u>\$ (13,370,382)</u>	<u>\$ (11,862,885)</u>

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

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Consolidated Statements of Stockholders' Equity (Deficit)

	<u>Preferred Stock</u>		<u>Common Stock</u>		<u>Additional Paid-in Capital</u>	<u>Accumulated Deficit</u>	<u>Accumulated Other Comprehensive Income</u>	<u>Total</u>
	<u>Shares</u>	<u>Amount</u>	<u>Shares</u>	<u>Amount</u>				
Balances as of January 1, 2010	—	\$ —	33,387,857	\$ 33,388	\$ 29,017,578	\$ (30,462,283)	\$ 63,381	\$ (1,347,936)
Issuance of common stock and warrants for cash, net of offering costs of \$506,967	—	—	6,083,667	6,084	6,796,234	—	—	6,802,318
Restricted stock issued for services, net of forfeitures	—	—	535,827	535	(45,328)	—	—	(44,793)
Issuance of common stock upon exercise of options, net of 45,269 shares forfeited in cashless exercise	—	—	131,051	131	42,991	—	—	43,122
Issuance of common stock for cash upon exercise of warrants	—	—	250,000	250	562,250	—	—	562,500
Issuance of warrants to placement agent	—	—	—	—	51,140	—	—	51,140
Issuance of common stock on conversion of redeemable convertible preference shares of subsidiary, net of issuance costs of \$8,636	—	—	787,062	787	1,113,246	—	—	1,114,033
Issuance of warrants as a cost of obtaining a term loan	—	—	—	—	46,230	—	—	46,230
Stock-based compensation	—	—	—	—	1,296,734	—	—	1,296,734
Net loss	—	—	—	—	—	(12,087,381)	—	(12,087,381)
Accretion on redeemable convertible preference shares of subsidiary associated with premium	—	—	—	—	—	(286,948)	—	(286,948)
Accretion on redeemable convertible preference shares of subsidiary associated with bifurcation of conversion element	—	—	—	—	—	(428,787)	—	(428,787)
Translation adjustment	—	—	—	—	—	—	224,496	224,496
Balances as of December 31, 2010	—	\$ —	41,175,464	\$ 41,175	\$ 38,881,075	\$ (43,265,399)	\$ 287,877	\$ (4,055,272)

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

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Consolidated Statements of Stockholders' Equity (Deficit)

	Series A, B and C Convertible Preference		Series A-1 Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income	Total
	Shares of Subsidiary		Shares		Shares					
	Shares	Amount	Shares	Amount	Shares	Amount				
Balances as of January 1, 2011	—	\$ —	—	\$ —	41,175,464	\$ 41,175	\$38,881,075	\$ (43,265,399)	\$ 287,877	\$ (4,055,272)
Restricted stock issued for services, net of forfeitures	—	—	—	—	240,444	240	(688)	—	—	(448)
Issuance of common stock for cash upon exercise of options, net of 121,246 shares forfeited in cashless exercise	—	—	—	—	203,494	204	8,996	—	—	9,200
Issuance of Series C convertible preference shares of subsidiary	3,233,734	4,993,728	—	—	—	—	—	—	—	4,993,728
Reclassification of Series A convertible preference shares of subsidiary to permanent equity resulting from amendment to terms of redemption option	888,888	206	—	—	—	—	—	—	—	206
Reclassification of Series B convertible preference shares of subsidiary to permanent equity due to lapse of redemption option	444,444	1,123,200	—	—	—	—	—	—	—	1,123,200
Issuance of Series A-1 Convertible Preferred Stock for cash, net of allocated offering costs of \$886,422	—	—	2,937,500	9,838,569	—	—	9,250,009	—	—	19,088,578
Issuance of warrants, net of allocated offering costs of \$806,039	—	—	—	—	—	—	8,946,378	—	—	8,946,378
Transfer on waiver of anti-dilution rights related to 1,051,074 warrants	—	—	—	—	—	—	315,803	—	—	315,803
Transfer on waiver of cure amount rights related to convertible promissory notes	—	—	—	—	—	—	573,923	—	—	573,923
Stock-based compensation	—	—	—	—	—	—	779,029	—	—	779,029
Net loss	—	—	—	—	—	—	—	(13,145,078)	—	(13,145,078)
Accretion on Series A-1 Convertible Preferred Stock associated with beneficial conversion feature	—	—	—	—	—	—	(9,250,009)	—	—	(9,250,009)
Accretion on redeemable convertible preference shares of subsidiary associated with premium	—	—	—	—	—	—	—	15,242	—	15,242
Translation adjustment	—	—	—	—	—	—	—	—	(225,304)	(225,304)
Balances as of December 31, 2011	<u>4,567,066</u>	<u>\$6,117,134</u>	<u>2,937,500</u>	<u>\$9,838,569</u>	<u>41,619,402</u>	<u>\$ 41,619</u>	<u>\$49,504,516</u>	<u>\$ (56,395,235)</u>	<u>\$ 62,573</u>	<u>\$ 9,169,176</u>

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

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Consolidated Statements of Cash Flows

	Year Ended December 31,	
	2011	2010
Cash flows from operating activities:		
Net loss	\$ (13,145,078)	\$ (12,087,381)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	834,861	432,067
Stock-based compensation	779,029	1,296,734
Exchange (gain) loss on issuance of convertible preference shares of subsidiary	(58,575)	3,005
Gain on revaluation of derivative liabilities, net	(9,271,985)	(643,711)
Liquidated damages for late S-1 registration	532,161	—
Excess debt discount expensed as interest	2,255,074	—
Provision for (recovery of) excess and obsolete inventory	1,052,266	(11,524)
Amortization of debt discount	113,081	—
Change in operating assets and liabilities:		
Restricted cash	100,651	(100,651)
Accounts receivable	749,010	(519,914)
Inventories	(1,523,541)	(1,015,256)
Prepaid expenses and other assets	483,943	(109,427)
Accounts payable	(424,479)	(45,149)
Accrued payroll and related costs	207,068	(292,103)
Other accrued expenses	229,247	284,063
Net cash used in operating activities	<u>(17,087,267)</u>	<u>(12,809,247)</u>
Cash flows from investing activities:		
Purchase of property and equipment	(621,120)	(1,120,808)
Net cash used in investing activities	<u>(621,120)</u>	<u>(1,120,808)</u>
Cash flows from financing activities:		
Repayment of capital lease obligations	(8,852)	(21,663)
Proceeds from issuance of term loan, net of issuance costs	—	1,842,760
Repayment of term loan	(2,178,585)	—
Net proceeds from issuance of Series B redeemable convertible preference shares of subsidiary	—	733,066
Net proceeds from issuance of Series C convertible preference shares of subsidiary	5,052,303	—
Cost of converting Series B redeemable convertible preference shares of subsidiary into common stock	—	(8,636)
Net proceeds from issuance of Series A-1 Convertible Preferred Stock, convertible promissory notes and warrants	27,492,876	—
Interest converted to principal on convertible promissory notes	460,383	—
Proceeds from issuance of common stock and warrants, net of offering costs	9,200	7,476,995
Payment of taxes for restricted stock forfeited	(448)	(44,793)
Net cash provided by financing activities	<u>30,826,877</u>	<u>9,977,729</u>
Effect of exchange rates on cash	<u>(211,259)</u>	<u>208,628</u>
Net increase (decrease) in cash and cash equivalents	12,907,231	(3,743,698)
Cash and cash equivalents at beginning of the period	<u>2,209,941</u>	<u>5,953,639</u>
Cash and cash equivalents at end of the period	<u>\$ 15,117,172</u>	<u>\$ 2,209,941</u>

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

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

NOTE 1. The Company

General. WaferGen Bio-systems, Inc. and its subsidiaries (the “Company”) are engaged in the development, manufacture and sales of systems for gene expression, genotyping and stem cell research for the life sciences, pharmaceutical drug discovery and biomarker discovery and diagnostic products industries. The Company’s products are aimed at professionals who perform genetic analysis and cell biology, primarily at pharmaceutical and biotech companies, academic and private research centers, and diagnostics companies involved in biomarker research. Through the SmartChip products, the Company plans to provide new performance standards with significant savings of time and cost for professionals in the field of gene expression research facilitating biomarker discovery, toxicology, and clinical research.

Wafergen, Inc. was incorporated in the State of Delaware on October 22, 2002, and was acquired by WaferGen Bio-systems, Inc. in a reverse merger on May 31, 2007.

On January 24, 2008, the Company formed a new subsidiary in Kulim Hi-Tech Park, Kedah, Malaysia. This subsidiary, WaferGen Biosystems (M) Sdn. Bhd. (“WGBM”), is involved in various initiatives to support a number of the Company’s ongoing development and commercialization goals. The Company owns 100% of the common stock and 8.2% (including all shares that have been assumed by the Company pursuant to exercises of exchange rights) of the preference shares of this entity. The Company expects that all of the subsidiary’s preference shares will be redeemed or converted into shares of the Company, however if all preference shares were converted into common stock of WGBM, the Company would own 72.8% of WGBM’s common stock. See Note 7 below.

On August 30, 2011, the Company formed a new wholly owned subsidiary in Luxembourg, to establish a presence for its marketing and research activities in Europe.

On May 27, 2011, the Company completed a private placement offering (the “May 2011 Private Placement”) with certain accredited investors, pursuant to which the Company sold an aggregate of approximately 2,937,500 shares of Series A-1 Convertible Preferred Stock at a stated value of \$5.20 per share, with each share being convertible into ten shares of common stock, convertible promissory notes in the aggregate principal amount of \$15,275,000, convertible into an aggregate of approximately 2,679,824 shares of Series A-2 Convertible Preferred Stock at a price of \$5.70 per share, with each share being convertible into ten shares of common stock, and warrants to purchase 56,173,248 shares of the Company’s common stock at an exercise price of \$0.62 per whole share. The Company received aggregate gross proceeds of \$30,550,000, which after deducting issuance costs of \$2,524,963 and liquidated damages of \$532,161 paid for late S-1 registration left net proceeds of \$27,492,876. As a result of this additional funding, substantial doubt about the Company’s ability to continue as a going concern no longer exists.

Subject to certain ownership limitations, the warrants issued in the May 2011 Private Placement were exercisable immediately and will expire five years from the date of issuance. They include a provision for excess shares in the event of a change in ownership and contain standard anti-dilution clauses in the event of recapitalization, stock splits or combinations, merger or reorganization, dividends or distributions and similar equity adjustments, but do not contain anti-dilution provisions that would prevent them from being considered indexed to the Company’s common stock, so they are accounted for within stockholders’ equity.

The Company retained a selling agent in connection with this registered direct offering, and pursuant to the terms of a selling agency agreement, the Company paid the selling agents an aggregate fee totaling approximately \$2,120,125.

NOTE 2. Summary of Significant Accounting Policies

Basis of Presentation. The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America.

Principles of Consolidation. The consolidated financial statements include the financial statements of WaferGen Bio-systems, Inc. and its subsidiaries. All significant transactions and balances between the WaferGen Bio-systems, Inc. and its subsidiaries have been eliminated in consolidation.

Development Stage. In prior years the Company was in the development stage.

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

Use of Estimates. Preparing financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, and expenses. Actual results and outcomes could differ from these estimates and assumptions.

Cash and Cash Equivalents. The Company considers all highly liquid debt investments with a remaining maturity of three months or less when purchased to be cash and cash equivalents.

Restricted Cash. Cash and cash equivalents that are restricted as to withdrawal or usage under the terms of contractual agreements are recorded as restricted cash. At December 31, 2010, the Company maintained a certificate of deposit which served as collateral for corporate credit cards.

Foreign Currencies. Assets and liabilities of non-U.S. subsidiaries for which the local currency is the functional currency are translated into U.S. dollars at the exchange rate on the balance sheet date. Revenues and expenses are translated at the average rates of exchange prevailing during each reporting period. Remeasurement adjustments resulting from this process are charged or credited to other comprehensive income (loss). Foreign exchange gains and losses for assets and liabilities of the Company's non-U.S. subsidiaries for which the functional currency is the U.S. dollar are recorded in Miscellaneous income (expense) in the Company's Consolidated Statement of Operations.

Fair Value of Financial Instruments. The carrying amounts of accounts receivable, prepaid expenses, other assets, accounts payable, accrued payroll and related costs and other accrued expenses approximate fair value due to the short-term maturities of these instruments.

Concentration of Credit Risk. Financial instruments that potentially subject the Company to significant concentrations of credit risk consist principally of cash and accounts receivable. The Company places its cash in commercial banks. Accounts in the United States are secured by the Federal Deposit Insurance Corporation. Accounts in Malaysia are also guaranteed by the Malaysian government. The Company's total deposits at commercial banks usually exceed the balances insured. The Company generally requires no collateral from its customers.

Accounts Receivable. An allowance for doubtful accounts will be recorded based on a combination of historical experience, aging analysis, and information on specific accounts. Account balances will be written off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote.

Inventory. Inventory is recorded at the lower of cost (first-in, first-out) or market value. Additionally, the Company evaluates its inventory in terms of excess and obsolete exposures.

Prepaid Expenses. Prepaid expenses are advance payment for products or services that will be used in operations and expensed based on usage, events, or the passing of time.

Advertising Costs. Advertising costs of \$32,780 and \$5,491 were expensed as incurred in the years ended December 31, 2011 and 2010, respectively.

Property and Equipment. Property and equipment are stated at cost and depreciated using the straight-line method over the estimated useful lives of the assets as follows:

Equipment	3 to 5 years
Tools and molds	3 years
Leasehold improvements	3 to 5 years, or remaining lease term if shorter
Furniture and fixtures	5 years

Costs of maintenance and repairs that do not improve or extend the lives of the respective assets are expensed as incurred. Upon retirement or sale, the cost and related accumulated depreciation are removed from the balance sheet and the resulting gain or loss is reflected in operating expenses.

Deferred Financing Costs. Costs incurred in connection with the issuance of debt are capitalized and amortized as interest expense using the effective interest method. The unamortized amounts are included in other assets.

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

Impairment of Long-Lived Assets. The Company continually evaluates whether events and circumstances have occurred that indicate the remaining estimated useful life of long-lived assets may warrant revision or that the remaining balance of long-lived assets may not be recoverable. When factors indicate that long-lived assets should be evaluated for possible impairment, the Company uses an estimate of the related undiscounted future cash flows over the remaining life of the long-lived assets in measuring whether they are recoverable. If the estimated undiscounted future cash flows do not exceed the carrying value of the asset, a loss is recorded as the excess of the asset's carrying value over its fair value. No assets were determined to be impaired in 2011 and 2010.

Income Taxes. Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the tax consequences attributable to differences between financial statement carrying amounts of existing assets and liabilities and their respective tax bases, and operating loss carry-forwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in the tax rates is recognized in income in the period that includes the enactment date. Accounting for deferred tax represents the best estimate of the likely future tax consequences of events that have been recognized in the Company's consolidated financial statements and tax returns and their future probability. A valuation allowance is recorded for loss carry-forwards and other deferred tax assets where it is more likely than not that such loss carry-forwards and deferred tax assets will not be realized. Interest and penalties related to uncertain tax positions are recognized in the provision for income taxes.

Government Grants. Incentives received from governments in the form of grants are recorded as a reduction in expense in accordance with their purpose.

Revenue Recognition. The Company recognizes revenue when (i) delivery of product has occurred or services have been rendered, (ii) there is persuasive evidence of a sale arrangement, (iii) selling prices are fixed or determinable, and (iv) collectability from the customers (individual customers and distributors) is reasonable assured. Revenue consists primarily of revenue generated from the sale of the Company's products. Revenue is recorded when the risk and rewards of ownership are transferred to the Company's customers (individual customers and distributors). This generally occurs when the Company's products are shipped from its facility as title has passed. Revenue is recorded net of estimated cash discount. The Company estimates and accrues an allowance for sale returns at the time the product is sold. To date, sales returns have not been material. Distributors have a fourteen day inspection period however this period is not an acceptance provision that purports to be a trial or evaluation purpose, is not an acceptance provision that grants a right of return or exchange on the basis of subjective matters, and is not an acceptance provision based on customer-specific objective criteria. The fourteen day inspection period is an acceptance provision that is based on seller-specified objective criteria.

Revenue from multi-deliverable arrangements is recognized for each element on delivery of product or completion of service. A typical multi-deliverable arrangement would be the shipment of capital equipment to a customer, followed by the delivery of services or of expendable equipment, provided such delivery is both probable and substantially within the Company's control. Revenue for each deliverable is allocated based on full list selling prices, although if none of the deliverables is disproportionately discounted relative to the overall discount, this allocation is approximated by using the actual selling price of each deliverable to the customer. The actual cost of revenue for each deliverable is recognized when the revenue for that deliverable is recognized.

Stock-Based Compensation. The Company measures the fair value of all stock-based awards to employees, including stock options, on the grant date and records the fair value of these awards, net of estimated forfeitures, to compensation expense over the service period. The fair value of awards to consultants is measured on the dates on which performance of services is completed, with interim valuations recorded at balance sheet dates while performance is in progress. The fair value of options is estimated using the Black-Scholes valuation model, and of restricted stock is based on the Company's closing share price on the measurement date.

Change in Fair Value of Derivatives. The Company recognizes its warrants with certain anti-dilution protection, the Series A convertible preference shares of its Malaysian subsidiary, and the conversion element of its convertible promissory notes and of the Series B convertible preference shares of its Malaysian subsidiary as derivative liabilities. Such liabilities are valued when the financial instruments are initially issued or the derivative first requires recognition and are also revalued at each reporting date, with the change in their respective fair values being recorded as a gain or loss on revaluation within other income and expenses in the statement of operations. The Company determines the fair value of all of its derivative liabilities using a Monte Carlo Simulation approach, with key input variables provided by management.

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

Warranty Reserve. The Company's standard warranty agreement is one year from shipment of certain products. The Company accrues for anticipated warranty costs upon shipment of these products. The Company's warranty reserve is based on management's judgment regarding anticipated rates of warranty claims and associated repair costs, and the Company updates its assessment quarterly.

Research and Development. Research and development costs are charged to operations as incurred.

Other Comprehensive Income. Other comprehensive income arises solely due to the cumulative translation adjustments which ensue from the Company's accounting policy for foreign currencies.

Net Income (Loss) Per Share. Basic net income (loss) per share is computed by dividing net income (loss) by the weighted average number of common shares outstanding during the period. Diluted income (loss) per share is calculated by dividing net income (loss) by the weighted average number of common shares outstanding plus common share equivalents from conversion of dilutive stock options, warrants, and restricted stock using the treasury method, and convertible securities using the as-converted method, except when antidilutive. In the event of a net loss, the effects of all potentially dilutive shares are excluded from the diluted net loss per share calculation as their inclusion would be antidilutive.

Recent Accounting Pronouncements.

In January 2010, the FASB issued ASU 2010-06, "Fair Value Measurements and Disclosures (Topic 820): Improving Disclosures about Fair Value Measurements." This guidance requires additional disclosures about fair value measurements, including information about purchases, sales, issuances and settlements in Level 3. The Company adopted this guidance effective January 1, 2011, and its adoption did not have a material impact on the Company's consolidated financial condition or results of operations.

In May 2011, the FASB issued ASU 2011-04, "Fair Value Measurement (Topic 820): Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs" ("ASU 2011-04"). ASU 2011-04 will result in common fair value measurement and disclosure requirements in U.S. GAAP and IFRSs. Consequently, the amendments change the wording used to describe many of the requirements in U.S. GAAP for measuring fair value and for disclosing information about fair value measurements. ASU 2011-04 is effective for interim and annual periods beginning after December 15, 2011, with early application not permitted, and becomes effective for the Company on January 1, 2012. The adoption of this standard will not have a material impact on the Company's consolidated financial position or results of operations.

In June 2011, the FASB issued ASU 2011-05, "Comprehensive Income (Topic 220): Presentation of Comprehensive Income" ("ASU 2011-05"). ASU 2011-05 requires that all non-owner changes in stockholders' equity be presented either in a single continuous statement of comprehensive income or in two separate but consecutive statements. In both choices, an entity is required to present each component of net income along with total net income, each component of other comprehensive income along with a total for other comprehensive income, and a total amount for comprehensive income. ASU 2011-05 is effective retrospectively for fiscal years, and interim periods within those years, beginning after December 15, 2011, with early adoption permitted. The Company adopted this guidance effective October 1, 2011, and its adoption did not have a material impact on the Company's consolidated financial condition or results of operations.

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

NOTE 3. Inventories

Inventories, net of provisions for potentially excess, obsolete or impaired goods, consisted of the following at December 31, 2011 and 2010:

	<u>December 31, 2011</u>	<u>December 31, 2010</u>
Raw materials	\$ 167,765	\$ —
Work in process	191,450	—
Finished goods	385,793	1,024,250
Inventories, net	<u>\$ 745,008</u>	<u>\$ 1,024,250</u>

NOTE 4. Property and Equipment

Property and equipment consisted of the following at December 31, 2011 and 2010:

	<u>December 31, 2011</u>	<u>December 31, 2010</u>
Equipment	\$ 2,876,490	\$ 2,153,242
Tools and molds	97,687	73,067
Leasehold improvements	105,327	104,552
Furniture and fixtures	154,930	150,773
Total property and equipment	3,234,434	2,481,634
Less accumulated depreciation and amortization	<u>(1,520,344)</u>	<u>(1,289,794)</u>
Property and equipment, net	<u>\$ 1,714,090</u>	<u>\$ 1,191,840</u>

Depreciation and amortization expense totaled \$834,861 and \$432,067 for the years ended December 31, 2011 and 2010. Property and equipment at December 31, 2010, included cost and accumulated depreciation of \$47,162 related to a lease on which the final installment was paid in August 2011.

NOTE 5. Long Term Obligations

On December 7, 2010, the Company entered a \$2,000,000 Loan and Security Agreement (“LSA”) with Oxford Finance Corporation (“Oxford”). Borrowings under this term loan were at an interest rate of approximately 13%, and for the first six months, interest only was repayable, after which the balance of principal and interest were repayable in equal monthly installments over a thirty month period. The Company granted Oxford a first priority security interest in substantially all of its assets, excluding its intellectual property.

The Company issued a total of 95,368 warrants to Oxford in connection with the LSA. These warrants have a term of five years, and an exercise price of \$1.468. Utilizing the Black-Scholes valuation model and assumptions of the fair value of common stock of \$1.41, an expected term of four years, estimated volatility of 43.96%, a zero dividend rate and a risk-free interest rate of 1.305%, the Company determined the total allocated fair value of the warrants to be \$46,230.

Further, the Company incurred initial costs of \$157,240 to obtain the LSA, which contained a provision providing for a termination fee of \$95,000. The total financing costs of \$298,470 were amortized as a non-cash interest expense over the period of the loan using the effective interest method.

The loan was repaid in full on May 27, 2011. At this date, the unamortized financing costs of \$222,275 plus additional costs of \$83,585 arising from early termination were expensed as interest. Deferred financing costs totaled \$287,585 at December 31, 2010, which consisted of \$298,470 in debt issuance costs less accumulated amortization of \$10,885.

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

On May 27, 2011, the Company sold convertible promissory notes in the aggregate principal amount of \$15,275,000, convertible into an aggregate of approximately 2,679,824 shares of Series A-2 Convertible Preferred Stock at a price of \$5.70 per share, with each share being convertible into ten shares of common stock. The convertible promissory notes were sold along with convertible preferred stock and warrants for aggregate gross proceeds of \$30,550,000, which after deducting issuance costs of \$2,524,963 left net proceeds of \$28,025,037. Interest on the convertible promissory notes accrues at a rate of 5% per annum, and may either be paid on the last day of each fiscal quarter, or added to the principal amount of the notes, at the Company's option.

Using the relative fair value of the securities issued, the Company initially allocated the gross proceeds of \$30,550,000 to the convertible promissory notes (\$10,072,592), the Series A-1 convertible preferred stock (\$10,724,991 - see Note 6) and the warrants (\$9,752,417 - see Note 9). However, until September 30, 2011, the convertible promissory notes contained features that adjusted the number of shares issuable to investors in the event the Company requested conversion of the convertible promissory notes in certain circumstances. They also contain features affording the holder additional shares in the event of certain organic changes to the Company. Because these features result in the embedded conversion element not being considered indexed to the Company's equity, the Company recognizes the conversion element of the convertible promissory notes as a derivative liability at its fair value. A liability of \$11,495,163 was thus recognized on the date of issuance, and this is marked to its fair value through income in all subsequent periods (see Note 10). Because the fair value of the conversion element exceeded the net proceeds initially allocated to the convertible promissory notes, the Company recognized a loss of \$2,255,074 at the date the convertible promissory notes were issued. The loss is reflected as additional interest expense.

In summary, the Company allocated the gross proceeds and issuance costs as follows:

Security	<u>Allocated Fair Value</u>	<u>Issuance Costs</u>	<u>Interest Expense</u>	<u>Net Allocation</u>
Series A-1 Convertible Preferred Stock	\$ 10,724,991	\$ (886,422)	\$ —	\$ 9,838,569
Convertible promissory notes	10,072,592	(832,502)	2,255,074	11,495,164
Warrants	9,752,417	(806,039)	—	8,946,378
Total	<u>\$ 30,550,000</u>	<u>\$ (2,524,963)</u>	<u>\$ 2,255,074</u>	<u>\$ 30,280,111</u>

The debt discount related to the debt element of the convertible promissory notes of \$14,442,497 is being amortized as non-cash interest expense using the effective yield method over the 3.5 year contractual term of the convertible promissory notes. The \$832,502 in issuance costs allocated to the convertible promissory notes was recorded as a deferred financing cost, which is also being amortized as a non-cash interest expense using the effective yield method over the 3.5 year contractual term of the promissory notes.

On September 30, 2011, Company and the note holders modified the convertible promissory note to eliminate the feature that adjusted the number of shares issuable to investors in the event the Company requested conversion of the convertible promissory notes in certain circumstances. This modification reduced the fair value of the conversion element derivative by \$573,923. The gain from that reduction in value of the conversion element derivative was recognized as an increase in Stockholders' Equity (see Note 10).

The Company values the derivative liability for the conversion element of the convertible promissory notes using a Monte Carlo Simulation approach, using critical assumptions provided by management reflecting conditions at the valuation dates. The fair value of this derivative liability at May 27, 2011, included assumptions of the fair value of common stock of \$0.68, estimated volatility of 64.31%, a risk-free interest rate of 0.21% and a contractual term of 3.5 years, and was estimated to be \$11,495,163. The fair value of this derivative liability at December 31, 2011, included assumptions of the fair value of common stock of \$0.16, estimated volatility of 82.82%, a risk-free interest rate of 0.18% and a contractual term of 2.91 years, and was estimated to be \$1,931,295.

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

The balance of the convertible promissory notes comprises the following at December 31, 2011:

	<u>December 31, 2011</u>
Convertible promissory notes payable:	
Face value	\$ 15,275,000
Interest added to principal	460,383
Stated value	<u>15,735,383</u>
Debt discount – conversion element, net of accumulated amortization of \$113,081	<u>14,329,416</u>
Notes payable, net of debt discount	<u>\$ 1,405,967</u>

The Company leased equipment under a capital lease on which the final installment was paid in August 2011 and has no future obligations under capital leases as of December 31, 2011. The Company leases its office space for use in its operations under non-cancellable operating leases that expire in April 2015 and December 2013.

Aggregate future minimum obligations for leases in effect as of December 31, 2011 are as follows:

	<u>Operating Leases</u>
Year ending December 31,	
2012	\$ 476,582
2013	499,605
2014	487,324
2015	<u>168,837</u>
Total minimum obligations	<u>\$ 1,632,348</u>

Rent expense totaled \$758,908 and \$504,777 for the years ended December 31, 2011 and 2010, respectively.

NOTE 6. Preferred Stock

The Company has 10,000,000 shares of preferred stock authorized. Effective May 26, 2011, the Company designated 4,500,000 shares as Series A-1 Convertible Preferred Stock and 4,500,000 shares as Series A-2 Convertible Preferred Stock (together, the "Series A Preferred Stock"). Each share of Series A Preferred Stock is convertible into ten shares of common stock, subject to an ownership cap whereby conversion may not occur to the extent the holder would own more than 9.985% of the common stock following conversion, and entitles the holder to receive dividends, as, when and if declared by the Company's Board of Directors, at an annual rate of 5% of the stated value per share of the respective series. Such dividends accrue, compounding quarterly, and accumulate on each share of Series A Preferred Stock from the date of issuance, whether or not declared, until November 27, 2014, when the right to further dividends ceases. The Series A Preferred Stock has no voting rights, and in the event of liquidation ranks senior to common stock.

Effective May 27, 2011, the Company sold an aggregate of 2,937,499.97 shares of Series A-1 Convertible Preferred Stock with a stated value of \$5.20 per share. The Company recorded the allocated valuation of \$10,724,991 (see Note 5), less allocated issuance costs of \$886,422, as Series A-1 Convertible Preferred Stock within permanent equity. The Company also recognized a beneficial conversion feature calculated as the number of potential conversion shares multiplied by the excess of the market price of the common stock on the issuance date over the price per conversion share based on the valuation allocated to the Series A-1 Convertible Preferred Stock. Since this preferred stock is immediately convertible and not redeemable, this non-contingent beneficial conversion feature of \$9,250,009 was recorded as a one-time accretion expense.

As of December 31, 2011, \$458,208 of undeclared dividends had been accrued with respect to the outstanding Series A-1 Convertible Preferred Stock.

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

NOTE 7. Convertible Preference Shares of Subsidiary

On July 18, 2008, the Company's Malaysian subsidiary, WGBM, received \$1,000,000, less issuance costs totaling \$30,000, in exchange for the issuance of Series A redeemable convertible preference shares ("CPS") of WGBM in a private placement to Malaysian Technology Development Corporation Sdn. Bhd. ("MTDC"), a venture capital and development firm in Malaysia. WGBM sold 444,444 Series A CPS in this private placement at the U.S. dollar equivalent of \$2.25 per share. A second closing occurred on November 27, 2008, and WGBM received \$1,000,000, less issuance costs totaling \$30,000, from the sale of an additional 444,444 shares of Series A CPS.

On June 8, 2009, WGBM received \$250,000, less an exchange loss of \$18,029 and issuance costs totaling \$19,393, in exchange for the issuance of 111,111 Series B CPS to Expedient Equity Ventures Sdn. Bhd. ("EEV"), in a private placement at the U.S. dollar equivalent of \$2.25 per share. On March 9, 2010, WGBM received \$250,000, less an exchange loss of \$3,005 and issuance costs totaling \$8,929, in exchange for the issuance of a further 111,111 Series B CPS to EEV, in a private placement at the U.S. dollar equivalent of \$2.25 per share. On September 23, 2009, WGBM received \$500,000, less issuance costs totaling \$7,500, in exchange for the issuance of 222,222 Series B CPS to Prima Mahawangsa Sdn. Bhd. ("PMSB"), in a private placement at the U.S. dollar equivalent of \$2.25 per share. On May 13, 2010, WGBM received \$500,000, less issuance costs totaling \$5,000, in exchange for the issuance of a further 222,222 Series B CPS to PMSB, in a private placement at the U.S. dollar equivalent of \$2.25 per share. These transactions represent the full subscription under a Share Subscription Agreement dated April 3, 2009, ("Series B SSA") to sell 444,444 and 222,222 Series B CPS to PMSB and EEV, respectively, both venture capital and development firms in Malaysia.

On September 18, 2009, WGBM received \$423,128, less issuance costs totaling \$11,319, in exchange for the issuance of 188,057 Series B CPS to Kumpulan Modal Perdana Sdn. Bhd. ("KMP"), in a private placement at the U.S. dollar equivalent of \$2.25 per share. This represents the full amount receivable under a Share Subscription Agreement dated July 1, 2009, to sell Series B CPS to KMP, a venture capital and development firm in Malaysia.

Under the terms of a Deed of Adherence dated April 3, 2009 (and under the Series C SSA, as defined below), certain rights of the holders of the Series A CPS were modified. In addition, under the terms of the Series B SSA, the use of funds raised through the issuance of both Series A and Series B CPS was restricted, requiring at least 60% of the total to be utilized for the Company's operations in Malaysia.

Following these modifications, the rights of the holders of Series A and B CPS included, but were not limited to, the right:

- (a) to put to the Company their CPS (or ordinary shares in WGBM received on conversion of those CPS under paragraph (c) below) at any time during the year 2011 that the share price of the Company's common stock is below \$2.25 in order to redeem for cash (or, at the holder's option, shares of Company common stock of equivalent value) the amount originally invested in USD plus a premium of 8%, compounded annually, with yearly rests (each year's accrued interest would be forfeited in the event of redemption prior to the anniversary of the initial investment) (the "Redemption Option," since amended for Series A and expired for Series B, see below);
- (b) to cause the Company to exchange their CPS for common stock of the Company at an exchange rate of US\$2.25 per share of common stock, provided, in the case of Series B CPS, that commencing on August 1, 2010, if during the 10-day trading period immediately prior to the holder's exercise notice the average closing price of the Company's common stock is less than US\$2.647, then the holder may exchange CPS at an exchange rate equal to 85% of such 10-day average closing price. This option expires on May 8, 2013, for MTDC's Series A CPS, on April 3, 2014, for EEV's and PMSB's Series B CPS and on July 1, 2014, for KMP's Series B CPS (the "Conversion Option," since exercised by EEV and KMP);
- (c) to convert their CPS into ordinary shares of the subsidiary, WGBM, at any time, at a conversion rate of three ordinary shares per \$100 invested in CPS;
- (d) to cause the subsidiary, WGBM, to redeem the CPS in whole or in part at any time after December 31, 2011, for the principal paid plus a premium of 20% per annum, not compounding, from funds legally available for distribution (i.e. retained earnings; there is presently an accumulated deficit in WGBM in excess of \$2 million);
- (e) of first offer on any transfers or new issuance of subsidiary shares; and
- (f) for each of Series A and Series B CPS, to appoint one of the seven directors of the subsidiary (see below also).

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

On August 1, 2010, an event occurred affording the investors in Series B CPS the option to convert their holdings into a number of shares in the Company at an exchange rate equal to 85% of the previous 10 days' average closing price. This conversion feature was recorded as a derivative liability and a reduction in CPS, which was immediately amortized as accretion expense. Utilizing the Black-Scholes valuation model and assumptions of the fair value of common stock of \$1.21, an exercise price of \$0.9894, estimated volatility of 64.30%, a risk-free interest rate of 0.14%, a zero dividend rate and an expected term of one day, the Company determined the fair value of the put option derivative liability to be \$428,787.

On August 17, 2010, EEV provided notice of exercise of its option to sell to the Company its holding of 222,222 Series B CPS in exchange for 458,483 shares of the Company's common stock, with shares to be issued on September 16, 2010. Utilizing the Black-Scholes valuation model and assumptions of the fair value of common stock of \$1.25, an exercise price of \$1.0906, estimated volatility of 64.02%, a risk-free interest rate of 0.16%, a zero dividend rate and an expected term of one day, the Company determined the fair value of the remaining put option derivative liability relating to EEV's shares to be \$73,105, and for the remaining CPS to be \$208,077.

On September 29, 2010, KMP provided notice of exercise of its option to sell to the Company its holding of 188,057 Series B CPS in exchange for 328,579 shares of the Company's common stock, with shares to be issued on October 29, 2010. Utilizing the Black-Scholes valuation model and assumptions of the fair value of common stock of \$1.51, an exercise price of \$1.2878, estimated volatility of 50.94%, a risk-free interest rate of 0.12%, a zero dividend rate and an expected term of one day, the Company determined the fair value of the remaining put option derivative liability relating to KMP's shares to be \$73,027, and for the remaining CPS to be \$172,588.

On December 31, 2010, the Company revalued the derivative liability utilizing the Black-Scholes valuation model and assumptions of the fair value of common stock of \$1.22, an exercise price of \$1.0217, estimated volatility of 55.40%, a risk-free interest rate of 0.07%, a zero dividend rate and an expected term of one day, and determined the fair value of the derivative liability to be \$194,088.

On December 31, 2011, the Series B CPS Redemption Option lapsed. The Series B CPS recorded in temporary equity was transferred to permanent equity and the value of the derivative liability for the conversion element, now the only substantive right available to PMSB, increased significantly as a result. The Company revalued this derivative liability utilizing a Monte Carlo Simulation and assumptions of the fair value of common stock of \$0.16, estimated volatility of 81.69%, a risk-free interest rate of 0.28%, a zero dividend rate and an expected term of 1.81 years, and determined the fair value of the derivative liability to be \$1,245,101. The increase in the fair value of this derivative liability of \$1,051,013 during the year ended December 31, 2011 was recorded as a revaluation loss (see Note 10).

On December 9, 2011, the terms of the Series A CPS were amended by a Letter Agreement with MTDC (the "MTDCLA") to extend the period during which MTDC could exercise the Redemption Option from December 31, 2011 to April 3, 2014. In addition, the holder's option to elect to receive shares of Company common stock of equivalent value (see above) was amended to give the Company the option, upon the exercise of the Redemption Option, to pay in shares of its common stock at an Applicable Stock Price ("ASP"), calculated as 85% of the average closing price of that stock during the 10-day trading period immediately prior to MTDC's exercise notice. Further, the ASP is subject to a ceiling of \$1.55 and a floor of \$0.10.

The amendment that allows the Company to settle the Redemption Option in a variable number of shares causes the Redemption Option to no longer be considered indexed to the Company's equity. As a result, the Company recognized the Redemption Option as an embedded derivative requiring bifurcation effective December 9, 2011. The Company valued the Redemption Option utilizing a Monte Carlo Simulation and assumptions of the fair value of common stock of \$0.16, estimated volatilities of 78.02% to 80.22%, risk-free interest rates of 0.27% and estimated remaining terms of 1.61 to 1.96 years; the fair value of the Redemption Option was estimated to be \$2,198,828. The host instrument (the Series A CPS absent the Redemption Option) is not redeemable and therefore should be classified as part of permanent equity. Accordingly, this modification to the Series A CPS resulted in (1) the recognition of a derivative liability of \$2,198,828 (see Note 10), (2) the elimination of temporary equity of \$2,519,424, and (3) an increase in permanent equity of \$320,596. As the fair value of the amended Series A CPS was \$320,390 less than the carrying amount of the accreted Series A CPS prior to the amendment, \$320,390 of the amount transferred to permanent equity was treated as reversal of prior accretion of the Series A CPS.

On December 31, 2011, the Company revalued the derivative liability for Series A CPS utilizing a Monte Carlo Simulation and assumptions of the fair value of common stock of \$0.16, estimated volatilities of 81.15% to 82.83%, risk-free interest rate of 0.28% and estimated remaining terms of 1.55 to 1.90 years; the total fair value was estimated to be \$2,135,715. The decrease in the fair value of this derivative liability of \$63,113 during the 22 days ended December 31, 2011 was recorded as a revaluation gain (see Note 10).

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

The balance in temporary equity comprises the following at December 31, 2011 and 2010:

	<u>December 31, 2011</u>	<u>December 31, 2010</u>
SERIES A		
Proceeds from issuance of CPS	\$ 2,000,000	\$ 2,000,000
Issuance costs	(60,000)	(60,000)
Accretion of issuance costs	60,000	45,416
Accretion of redemption premium prior to December 9, 2011	519,424	283,717
	<u>2,519,424</u>	<u>2,269,133</u>
Balance before change in terms on December 9, 2011	2,519,424	2,269,133
Reversal of accretion of redemption premium due to change in terms on December 9, 2011	(320,390)	—
Reclassified to permanent equity	(206)	—
Reclassified to derivative liability	(2,198,828)	—
	<u>—</u>	<u>2,269,133</u>
SERIES B		
Proceeds from issuance of CPS	1,000,000	1,000,000
Issuance costs	(23,763)	(23,763)
Accretion of issuance costs	23,763	15,073
Accretion of redemption premium	123,200	77,033
Reclassified to permanent equity on lapse of redemption option	(1,123,200)	—
	<u>—</u>	<u>1,068,343</u>
Total Series B CPS	—	1,068,343
Total temporary equity	<u>\$ —</u>	<u>\$ 3,337,476</u>

On March 10, 2011, WGBM received \$5,000,000, less issuance costs totaling \$6,272, in exchange for the issuance of 3,233,734 Series C convertible preference shares (“CPS”) to MTDC, in a private placement at the U.S. dollar equivalent of \$1.5462 per share, representing the first subscription under a Share Subscription Agreement dated December 14, 2010, (“Series C SSA”) to sell 3,233,734 Series C CPS at an initial closing and, should MTDC so elect within 36 months of the initial closing, to sell 1,077,911 shares of Series C CPS at a subsequent closing at the U.S. dollar equivalent of US\$2.3193 per share. MTDC may also elect to convert their Series C CPS into ordinary shares of the subsidiary, WGBM, at any time, at a conversion rate of one ordinary share per 100 CPS. MTDC may appoint one of the seven directors of the subsidiary (in addition to the director they may appoint as the holder of Series A CPS), and an additional independent director may be jointly appointed by MTDC and the Company.

Each Series C CPS issued at the initial closing can convert into one share of the Company on April 3, 2014 (this was extended from December 20, 2011, by the MTDCCLA), and each Series C CPS issued at the subsequent closing will convert into one share of the Company on the anniversary of that closing, but the Series C may convert at any earlier date following each closing at MTDC’s option.

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

The balance in permanent equity related to Series A, B and C CPS comprises the following at December 31, 2011 and 2010:

	<u>December 31, 2011</u>	<u>December 31, 2010</u>
SERIES A		
Reclassified from temporary equity due to change in terms on December 9, 2011	\$ 206	\$ —
SERIES B		
Reclassified from temporary equity on lapse of redemption option on December 31, 2011	1,123,200	—
SERIES C		
Proceeds from issuance of CPS	5,058,575	—
Exchange gain on issuance	(58,575)	—
Issuance costs	(6,272)	—
Total Series C CPS	4,993,728	—
Total CPS accounted for as permanent equity	\$ 6,117,134	\$ —

WGBM is authorized to issue 200,000,000 preference shares with a par value of RM0.01. There were 4,977,345 preference shares (including 3,233,734 Series C CPS issued in the year ended December 31, 2011, and 410,279 Series B CPS held by the Company upon exercise by EEV and KMP of their options) issued and outstanding at December 31, 2011, and 1,743,611 preference shares (including 410,279 Series B CPS held by the Company) issued and outstanding at December 31, 2010.

NOTE 8. Stock Awards

In 2003, WaferGen's Board of Directors adopted the 2003 Incentive Stock Plan (the "2003 Plan"). The 2003 Plan authorized the Board of Directors to grant incentive stock options and non-statutory stock options to employees, directors, and consultants for up to 1,500,000 shares of common stock. Under the Plan, incentive stock options and nonqualified stock options could be granted. Incentive stock options were to be granted at a price that is no less than 100% of the fair value of the stock at the date of grant. Options vest over a period according to the Option Agreement, and are exercisable for a maximum period of ten years after date of grant. Options granted to stockholders who own more than 10% of the outstanding stock of WaferGen at the time of grant must be issued at an exercise price no less than 110% of the fair value of the stock on the date of grant. In November 2006, WaferGen increased the aggregate number of shares of common stock that may be issued under the 2003 Plan to a total authorized reserve of 2,500,000 shares, a 1,000,000 share increase. The 2003 Plan was frozen when the 2007 Plan was adopted, resulting in no further options available for grant.

In January, 2007, the Company's Board of Directors and stockholders adopted the 2007 Stock Option Plan (the "2007 Plan"). The purpose of the 2007 Plan was to provide an incentive to retain the employment of directors, officer, consultants, advisors and employees of the Company, persons of training, experience and ability, to attract new directors, officers, consultants, advisors and employees whose services are considered valuable, to encourage the sense of proprietorship, and to stimulate the active interest of such persons into the Company's development and financial success. Under the 2007 Plan, the Company was authorized to issue incentive stock options intended to qualify under Section 422 of the Code, non-qualified stock options and restricted stock. The 2007 Plan was frozen when the 2008 Plan was adopted, resulting in no further options available for grant.

On June 5, 2008, the Company's stockholders adopted the 2008 Stock Incentive Plan (the "2008 Plan") following approval of the 2008 Plan by the Board of Directors. The 2008 Plan initially authorized the issuance of up to 2,000,000 shares of common stock pursuant to the terms of the 2008 Plan. On December 4, 2009, the Company's stockholders approved an amendment to the 2008 Plan following approval of the 2008 Plan by the Board of Directors, adding an additional 1,500,000 shares, bringing the total to 3,500,000 shares of the Company's common stock available for issuance under the 2008 Plan. On September 16, 2010, the Company's stockholders approved a further amendment to the 2008 Plan following approval of the 2008 Plan by the Board of Directors, adding an additional 3,000,000 shares, bringing the total to 6,500,000 shares of the Company's common stock available for issuance under the 2008 Plan. On December 30, 2011, the Company's stockholders approved a further amendment to the 2008 Plan following approval of the 2008 Plan by the Board of Directors, adding an

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

additional 8,000,000 shares, bringing the total to 14,500,000 shares of the Company's common stock available for issuance under the 2008 Plan. Notwithstanding the foregoing, no more than 7,250,000 shares of the Company's common stock may be granted pursuant to awards of restricted stock and restricted stock units. The number of shares of the Company's common stock available under the 2008 Plan will be subject to adjustment in the event of a stock split, stock dividend or other extraordinary dividend, or other similar change in the Company's common stock or capital structure. The purpose of the 2008 Plan is to provide an incentive to retain the employment of directors, officers, consultants, advisors and employees of the Company, to attract new personnel whose training, experience and ability are considered valuable, to encourage the sense of proprietorship, and to stimulate the active interest of such persons in the Company's development and financial success. Under the 2008 Plan, the Company is authorized to issue incentive stock options intended to qualify under Section 422 of the Code, non-qualified stock options and restricted stock. Awards may vest over varying periods, as specified by the Company's Board of Directors for each grant, and have a maximum term of seven years from the grant date. The 2008 Plan is administered by the Company's Board of Directors.

The Company has issued both options and restricted stock under these Plans. Restricted stock grants afford the recipient the opportunity to receive shares of common stock, subject to certain terms, whereas options give them the right to purchase common stock at a set price. Both the Company's options and restricted stock issued to employees generally have vesting restrictions that are eliminated over a four-year period, although vesting may be over a shorter period, or may occur on the grant date, depending on the terms of each individual award.

A summary of stock option and restricted stock transactions is as follows:

	Stock Options			Restricted Stock	
	Shares Available For Grant	Number of Options Outstanding	Weighted Average Exercise Price	Number of Options Outstanding	Weighted Average Grant-Date Fair Value
Balance at January 1, 2010	1,437,979	4,149,402	\$ 1.4246	8,208	\$ 1.1055
2008 Plan Amendment	3,000,000	—	\$ —	—	\$ —
Granted	(2,569,033)	1,997,500	\$ 1.7249	571,533	\$ 1.6768
Exercised	—	(176,950)	\$ 0.6912	—	\$ —
Vested	—	—	\$ —	(416,535)	\$ 1.6809
Forfeited	228,042	(276,226)	\$ 1.7863	(1,250)	\$ 2.3900
Canceled	94,833	(149,833)	\$ 2.0310	(34,456)	\$ 1.5927
Balance at December 31, 2010	2,191,821	5,543,893	\$ 1.5218	127,500	\$ 1.6422
2008 Plan Amendment	8,000,000	—	\$ —	—	\$ —
Granted	(1,504,635)	1,153,550	\$ 0.6427	351,085	\$ 0.8497
Exercised	—	(324,740)	\$ 0.3220	—	\$ —
Vested	—	—	\$ —	(362,944)	\$ 0.8909
Forfeited	1,247,521	(1,140,021)	\$ 1.2928	(110,000)	\$ 1.6050
Canceled	370,364	(925,782)	\$ 1.7061	(641)	\$ 2.3900
Balance at December 31, 2011	10,305,071	4,306,900	\$ 1.3978	5,000	\$ 1.2500

The following table summarizes information concerning outstanding options as of December 31, 2011:

Options	Number of Shares	Weighted Average Remaining Contractual Life (in Years)	Weighted Average Exercise Price	Aggregate Intrinsic Value
Outstanding	4,306,900	4.80	\$ 1.3978	\$ 12,616
Vested and expected to vest	4,196,302	4.77	\$ 1.4060	\$ 12,616
Exercisable	2,799,076	4.22	\$ 1.5195	\$ 12,616

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

The aggregate intrinsic value in the preceding table represents the total pre-tax value (i.e., the difference between the Company's stock price and the exercise price) of stock options outstanding as of December 31, 2011, based on our common stock closing price of \$0.16, which would have been received by the option holders had all their in-the-money options been exercised as of that date.

The weighted average fair value of options granted in the years ended December 31, 2011 and 2010, was \$0.29 and \$0.70, respectively. These fair values were estimated using the following assumptions (see also Note 10):

	Year Ended December 31,	
	2011	2010
Risk-free interest rate	0.79% - 2.24%	1.05% - 2.51%
Expected term	4.75 Years	4.75 Years
Expected volatility	42.44% - 66.83%	42.40% - 43.01%
Dividend yield	0%	0%

The fair value of options vested in the years ended December 31, 2011 and 2010, was \$463,168 and \$666,656, respectively. The Company received \$104,566 for the 324,740 options exercised during the year ended December 31, 2011, which had an intrinsic value of \$203,399. The Company received \$122,308 for the 176,950 options exercised during the year ended December 31, 2010, which had an intrinsic value of \$189,881.

The amounts expensed for stock-based compensation totaled \$779,029 and \$1,296,734 for the years ended December 31, 2011 and 2010, respectively. The sums expensed include \$130,230 and \$688,585 for restricted stock awards to consultants in the years ended December 31, 2011 and 2010, respectively.

At December 31, 2011, the total stock-based compensation cost not yet recognized, net of estimated forfeitures, was \$454,880. This cost is expected to be recognized over an estimated weighted average amortization period of 2.45 years. No amounts related to stock-based compensation costs have been capitalized. The tax benefit and the resulting effect on cash flows from operations and financial activities, related to stock-based compensation costs were not recognized as the Company currently provides a full valuation allowance for all of its deferred taxes.

NOTE 9. Warrants

The Company has incurred liabilities for the estimated fair value of derivative warrant instruments. The estimated fair value of the derivative warrant instruments has been calculated using a Monte Carlo Simulation approach, with key input variables provided by management, as of each issuance date, with the valuation offset against additional paid in capital, and at each reporting date, with changes in fair value recorded as gains or losses on revaluation in non-operating income (expense).

In connection with the fundraising in May 27, 2011, members of management, with warrants to purchase a total of 1,051,074 shares with an estimated fair value of \$315,803 following anti-dilution adjustments as of that date, waived their right to any future anti-dilution adjustments, so this estimated fair value was transferred to stockholders' equity. During the year ended December 31, 2011, the remainder of the decrease in the fair value of the warrant derivative liability of \$1,269,940 was recorded as a gain on revaluation of warrants, net. During the year ended December 31, 2010, warrants with a fair value of \$17,915 were issued, and this sum plus the decrease in the fair value of the warrant derivative liability of \$537,229 was recorded as a gain on revaluation of warrants, net (see Note 10).

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

The fair value of warrants ranged from \$0.02 to \$0.10 at December 31, 2011, and from \$0.32 to \$0.69 at December 31, 2010. Fair values at December 31, 2011 and 2010, were estimated using the following assumptions (see also Note 10):

	<u>December 31, 2011</u>	<u>December 31, 2010</u>
Risk-free interest rate	0.16% - 0.32%	0.57% - 1.15%
Expected remaining term	1.25 - 2.39 Years	1.91 - 3.18 Years
Expected volatility	80.66% - 85.13%	67.61% - 86.53%
Dividend yield	0%	0%

A summary of outstanding common stock warrants as of December 31, 2011 is as follows:

<u>Securities Into Which Warrants are Convertible</u>	<u>Warrants Outstanding</u>	<u>Warrants Subject to Anti-Dilution</u>	<u>Exercise Price</u>	<u>Expiration Date</u>
Common stock	56,173,248	—	\$0.6200	May 2016
Common stock	4,487,656	3,718,425	\$0.7800	June and August 2014
Common stock	2,875,736	2,774,050	\$0.8400	December 2014 and January 2015
Common stock	2,265,071	2,084,914	\$0.8400	May 2013
Common stock	44,401	—	\$1.4100	March 2012
Common stock	95,368	—	\$1.4680	December 2015
Common stock	203,500	—	\$1.5000	July 2015
Common stock	3,000,830	—	\$1.5500	July 2015
Common stock	2,666,459	—	\$2.2500	May and June 2012
Common stock	200,000	—	\$3.0000	December 2014 and November 2015
Subtotal	72,012,269	8,577,389		
Series C CPS	1,077,911	—	\$2.3193	March 2014
Total	73,090,180	8,577,389		

The warrants expiring in May 2016 were issued in conjunction with the May 2011 Private Placement (see Note 1), and were valued at the time of issuance utilizing the Black-Scholes valuation model and assumptions of the fair value of common stock of \$0.68, an exercise price of \$0.62, estimated volatility of 89.58%, a risk free interest rate of 1.03%, a zero dividend rate and an expected term of 3.5 years. These warrants include the right to receive consideration for the unexercised portion of the warrant, based on a Black-Scholes model set forth in the warrants, in the event of certain substantial changes in ownership or trading status of the Company. This contingent embedded derivative will be accounted for only if such an event should occur.

The warrants expiring in December 2014 and January 2015 were originally issued in December 2009 and January 2010 with an exercise price of \$2.50 and entitled the holders thereof to purchase an aggregate of 966,247 shares. As a result of anti-dilution adjustments with respect to such warrants pursuant to their terms, such warrants, as of December 31, 2011, had an exercise price of \$0.84 and entitled the holders thereof to purchase an aggregate of 2,875,736 shares. In connection with the May 2011 Private Placement, members of management with warrants to purchase a total of 101,686 shares (after giving effect to prior anti-dilution adjustments) waived their right to further anti-dilution adjustments.

The warrants expiring in June and August 2014 were originally issued in June and August 2009 with an exercise price of \$2.00 and entitled the holders thereof to purchase an aggregate of 1,750,185 shares. As a result of anti-dilution adjustments with respect to such warrants pursuant to their terms, such warrants, as of December 31, 2011, had an exercise price of \$0.78 and entitled the holders thereof to purchase an aggregate of 4,487,656 shares. In connection with the May 2011 Private Placement, members of management with warrants to purchase a total of 769,231 shares (after giving effect to prior anti-dilution adjustments) waived their right to further anti-dilution adjustments.

The warrants expiring in May 2013 were originally issued in May 2008 with an exercise price of \$3.00 and entitled the holders thereof to purchase an aggregate of 634,220 shares. As a result of weighted-average anti-dilution adjustments with respect to such warrants pursuant to their terms, such warrants, as of December 31, 2011, had an exercise price of \$0.84 and

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

entitled the holders thereof to purchase an aggregate of 2,265,071 shares. In connection with the May 2011 Private Placement, members of management with warrants to purchase a total of 180,157 shares (after giving effect to prior anti-dilution adjustments) waived their right to further anti-dilution adjustments.

The 95,368 warrants expiring in December 2015 were issued in December 2010 in conjunction with obtaining a term loan (see Note 5).

The exercise price of 50,000 warrants expiring in December 2014 was amended from \$3.25 to \$3.00 in the second quarter of 2010. The change in their fair value was not significant, and no expense was recorded.

The Series C SSA (see Note 7) grants the holders of the Series C CPS the right to subscribe for a further 1,077,911 CPS at a price of \$2.3193. Since these Series C CPS would convert into common stock of the Company within one year of the subscription date, this right is, for accounting purposes, equivalent to a warrant to purchase the Company's common stock.

NOTE 10. Fair Value of Financial Instruments

Fair value measurements are determined under a three-level hierarchy for fair value measurements that prioritizes the inputs to valuation techniques used to measure fair value, distinguishing between market participant assumptions developed based on market data obtained from sources independent of the reporting entity ("observable inputs") and the reporting entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances ("unobservable inputs").

Fair value is the price that would be received to sell an asset or would be paid to transfer a liability (i.e., the "exit price") in an orderly transaction between market participants at the measurement date. In determining fair value, the Company primarily use prices and other relevant information generated by market transactions involving identical or comparable assets ("market approach"). The Company also considers the impact of a significant decrease in volume and level of activity for an asset or liability when compared with normal activity to identify transactions that are not orderly.

The highest priority is given to unadjusted quoted prices in active markets for identical assets (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). Securities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

The three hierarchy levels are defined as follows:

Level 1 – Quoted prices in active markets that are unadjusted and accessible at the measurement date for identical, unrestricted assets or liabilities;

Level 2 – Quoted prices for identical assets and liabilities in markets that are not active, quoted prices for similar assets and liabilities in active markets or financial instruments for which significant inputs are observable, either directly or indirectly;

Level 3 – Prices or valuations that require inputs that are both significant to the fair value measurement and unobservable.

Credit risk adjustments are applied to reflect the Company's own credit risk when valuing all liabilities measured at fair value. The methodology is consistent with that applied in developing counterparty credit risk adjustments, but incorporates the Company's own credit risk as observed in the credit default swap market.

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

The following tables present the Company's assets and liabilities that are measured at fair value on a recurring basis at December 31, 2011 and 2010:

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
December 31, 2011				
Financial Assets:				
Cash and cash equivalents	\$ 15,117,172	\$ —	\$ —	\$ 15,117,172
Total assets	<u>\$ 15,117,172</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 15,117,172</u>
Financial Liabilities:				
Warrant derivative liabilities	\$ —	\$ —	\$ 655,219	\$ 655,219
Conversion element of promissory notes	—	—	1,931,295	1,931,295
Conversion element of Series B CPS	—	—	1,245,101	1,245,101
Series A CPS derivative liabilities	—	—	2,135,715	2,135,715
Total liabilities	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 5,967,330</u>	<u>\$ 5,967,330</u>

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
December 31, 2010				
Financial Assets:				
Cash and cash equivalents, including restricted cash	\$ 2,310,592	\$ —	\$ —	\$ 2,310,592
Total assets	<u>\$ 2,310,592</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 2,310,592</u>
Financial Liabilities:				
Warrant derivative liabilities	\$ —	\$ —	\$ 2,240,962	\$ 2,240,962
Conversion element of Series B CPS	—	—	194,088	194,088
Total liabilities	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 2,435,050</u>	<u>\$ 2,435,050</u>

The following tables present a reconciliation of all liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3) for the years ended December 31, 2011 and 2010:

	<u>Warrant Derivatives</u>	<u>Conversion Element of Promissory Notes</u>	<u>Conversion Element of Series B CPS</u>	<u>Series A CPS Derivatives</u>	<u>Total</u>
Balance at January 1, 2011	\$ 2,240,962	\$ —	\$ 194,088	\$ —	\$ 2,435,050
Issuances	—	11,495,163	—	2,198,828	13,693,991
Revaluation (gains) losses included in other income and expenses	(1,269,940)	(8,989,945)	1,051,013	(63,113)	(9,271,985)
Settlements	(315,803)	(573,923)	—	—	(889,726)
Balance at December 31, 2011	<u>\$ 655,219</u>	<u>\$ 1,931,295</u>	<u>\$ 1,245,101</u>	<u>\$ 2,135,715</u>	<u>\$ 5,967,330</u>
Total gains (losses) included in other income and expenses attributable to liabilities still held as of December 31, 2011	<u>\$ 1,324,165</u>	<u>\$ 8,989,945</u>	<u>\$ (1,051,103)</u>	<u>\$ 63,113</u>	<u>\$ 9,326,210</u>

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

	<u>Warrant Derivatives</u>	<u>Conversion Element of Promissory Notes</u>	<u>Conversion Element of Series B CPS</u>	<u>Series A CPS Derivatives</u>	<u>Total</u>
Balance at January 1, 2010	\$ 2,778,191	\$ —	\$ —	\$ —	\$ 2,778,191
Issuances	17,915	—	428,787	—	446,702
Revaluation gains included in other income and expenses	(555,144)	—	(88,567)	—	(643,711)
Settlements	—	—	(146,132)	—	(146,132)
Balance at December 31, 2010	<u>\$ 2,240,962</u>	<u>\$ —</u>	<u>\$ 194,088</u>	<u>\$ —</u>	<u>\$ 2,435,050</u>
Total gains included in other income and expenses attributable to liabilities still held as of December 31, 2010	<u>\$ 555,144</u>	<u>\$ —</u>	<u>\$ 28,875</u>	<u>\$ —</u>	<u>\$ 584,019</u>

Assumptions used in evaluating the warrant derivative liabilities, the conversion element of the promissory notes, the conversion element of the Series B CPS and the Series A CPS derivative liabilities are discussed in Notes 9, 5, 7 and 7, respectively. The principal assumptions used, and their impact on valuations, are as follows:

Risk-Free Interest Rate. This is the U.S. Treasury rate for the measurement date having a term equal to the weighted average expected remaining term of the instrument. An increase in the risk-free interest rate will increase the fair value and the associated derivative liability.

Expected Remaining Term. This is the period of time over which the instrument is expected to remain outstanding and is based on management's estimate, taking into consideration the remaining contractual life, and historical experience. For the convertible promissory notes, the Company considers a blend of expected remaining terms prior to partial conversion into Series A-2 Convertible Preferred Stock, giving consideration to the likelihood of conversion under various scenarios, and a further blend of expected remaining terms prior to partial conversion into common stock, all based on management's projections of when such conversions would occur within the contractual term. An increase in the expected remaining term will increase the fair value and the associated derivative liability.

Expected Volatility. This is a measure of the amount by which the Company's common stock price has fluctuated or is expected to fluctuate. To the extent that Company's common stock has not been traded for as long as the expected remaining term of the instrument, the Company uses a weighted-average of the historic volatility of a group of publicly traded companies over the retrospective period corresponding to the expected remaining term of the instrument on the measurement date. The group of publicly traded companies is selected from the same industry or market index, with extra weighting attached to those companies most similar in terms of business activity, size and financial leverage. To the extent that the Company's common stock has been traded for longer than the expected remaining term of the instrument, this weighted average is used to determine 50% of the volatility, with the Company's own historic volatility used to determine the remaining 50%. An increase in the expected volatility will increase the fair value and the associated derivative liability.

Dividend Yield. The Company has not made any dividend payments and does not plan to pay dividends in the foreseeable future. An increase in the dividend yield will decrease the fair value and the associated derivative liability.

NOTE 11. Cash Flow Information

Cash paid during the years ended December 31, 2011 and 2010, is as follows (interest paid in the year ended December 31, 2011, excludes \$178,585 which was paid to Oxford relating to termination of the term loan and was expensed as interest, and interest paid in the year ended December 31, 2010, excludes payments for initial costs totaling \$157,240 relating to this term loan, which was being amortized as interest expense over the term of the loan, as described in Note 5):

	<u>Year Ended December 31,</u>	
	<u>2011</u>	<u>2010</u>
Interest	<u>\$ 127,062</u>	<u>\$ 2,736</u>
Income taxes	<u>\$ 24,817</u>	<u>\$ —</u>

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

Supplemental disclosure of non-cash investing and financing activities for the years ended December 31, 2011 and 2010, is as follows:

	Year Ended December 31,	
	2011	2010
Warrant derivative liabilities transferred to equity on waiver of future anti-dilution rights	\$ 315,803	\$ —
Conversion element of convertible promissory notes transferred to equity on modification of terms (See Note 5)	\$ 573,923	\$ —
Exchange of common stock for Series B convertible preference shares of subsidiary	\$ —	\$ 1,122,669
Conversion element bifurcated on issuance of convertible promissory notes	\$ 11,495,163	\$ —
Interest converted to principal on convertible promissory notes	\$ 460,383	\$ —
Beneficial conversion feature related to Series A-1 Convertible Preferred Stock	\$ 9,250,009	\$ —
Inventory transferred to property and equipment	\$ 750,501	\$ 42,500
Issuance of warrants with term loan	\$ —	\$ 46,230
Accretion on Series A and B convertible preference shares of subsidiary associated with premium	\$ (15,242)	\$ 286,948
Recording of derivative liability and accretion on Series B convertible preference shares of subsidiary associated with conversion element	\$ —	\$ 428,787
Issuance to placement agents of warrants classified as derivative liabilities	\$ —	\$ 2,200

NOTE 12. Income Taxes

The provision for income taxes consists of the following for the years ended December 31, 2011 and 2010:

	Year Ended December 31,	
	2011	2010
Current:		
Federal	\$ —	\$ —
State	—	—
Foreign	27,247	—
Total Current	\$ 27,247	\$ —
Deferred:		
Federal	\$ —	\$ —
State	—	—
Foreign	—	—
Total Deferred	\$ —	\$ —
Provision for income taxes	\$ 27,247	\$ —

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

A reconciliation of the provision for income taxes with the expected provision for income taxes computed by applying the federal statutory income tax rate 34% to the net loss before provision for income taxes for the years ended December 31, 2011 and 2010:

	Year Ended December 31,	
	2011	2010
Provision for income taxes at federal statutory rate	\$ (4,460,063)	\$ (4,109,710)
Federal research and development tax credits	(160,003)	(243,728)
Expenses not deductible, income not taxable	(2,705,607)	(78,682)
Foreign loss taxed at lower rates	232,280	57,721
Change in federal valuation allowance	7,120,640	4,374,399
	<u>27,247</u>	<u>—</u>
Provision for income taxes	\$ 27,247	\$ —

The components of the deferred tax assets as of December 31, 2011 and 2010, are as follows:

	December 31,	December 31,
	2011	2010
Deferred tax assets:		
Net operating loss carry-forwards	\$ 21,588,554	\$ 14,953,083
Capitalized start-up cost and research and development cost	891,708	763,901
Research and development tax credit	1,239,795	1,514,570
Depreciation on property and equipment	(366,292)	110,209
Stock-based compensation	677,381	—
Reserves and accruals	666,336	146,734
	<u>24,697,482</u>	<u>17,488,497</u>
Total deferred tax asset	24,697,482	17,488,497
Valuation allowance	(24,697,482)	(17,488,497)
Net deferred tax assets	\$ —	\$ —

The following deferred income taxes were provided for the years ended December 31, 2011 and 2010:

	Year Ended December 31,	
	2011	2010
Deferred tax assets:		
Net operating loss carry-forwards	\$ 6,635,471	\$ 5,249,374
Capitalized start-up cost and research and development cost	127,807	(87,181)
Research and development tax credit	(274,775)	540,782
Depreciation on property and equipment	(476,501)	71,799
Stock-based compensation	677,381	—
Reserves and accruals	519,602	(55,063)
Valuation allowance	(7,208,985)	(5,719,711)
	<u>—</u>	<u>—</u>
Net deferred income taxes	\$ —	\$ —

Management believes that, based on a number of factors, it is more likely than not that the net deferred tax assets will not be fully realizable. Accordingly, the Company has provided a full valuation allowance against its net deferred tax assets. At December 31, 2011, the Company had federal and state net operating loss carry-forwards ("NOLs") of approximately \$54,500,000 and \$52,300,000, respectively, and foreign operating loss carry-forwards of approximately \$2,600,000. The federal and state NOLs will expire in various periods from 2026 through 2031.

At December 31, 2011, the Company had research and development tax credits of approximately \$700,000 and \$800,000 available to offset future income taxes, if any, for federal and California state purposes, respectively. These federal tax credits will expire in various periods from 2027 through 2031 and the California state tax credits can be carried forward indefinitely.

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

Utilization of NOLs and tax credit carry-forwards may be subject to substantial limitation due to the ownership change limitations provided by Section 382 of the Internal Revenue Code of 1986 and similar state provisions. The annual limitation may result in the expiration of NOLs and tax credits before utilization. Further, the Company may never be able to utilize any of the state NOLs due to the California Budget Act of 2010, Section 870, enacted on October 8, 2010, which suspended the utilization of NOLs for California state tax.

The Company files U.S. federal and various state income tax returns. There are no prior year tax returns under audit by taxing authorities, and management is not aware of any impending audits. As a result of the Company's NOL carry-forwards, all tax years from 2006 through 2011 remain subject to federal and state tax examination.

The Company has established tax reserves for uncertain tax positions totaling \$645,000 as of December 31, 2011. A reconciliation of the change in unrecognized tax benefits is as follows:

Balance as of January 1, 2011	\$	—
Additions based on tax positions related to prior years		497,000
Additions based on tax positions related to the current year		148,000
Balance as of December 31, 2011	\$	<u>645,000</u>

All of the unrecognized tax benefits are recognized in the Company's financial statements as a reduction in the Company's deferred tax assets. Accordingly, the Company has not accrued any interest or penalties related to unrecognized tax benefits. Because the Company has a full valuation allowance against its deferred tax assets, there will be no income tax effect of releasing the unrecognized tax benefits. The Company expects no significant changes to its uncertain tax positions in the next 12 months.

NOTE 13. Net Income (Loss) Per Share

Basic and diluted net income (loss) per share are shown on the Statements of Operations.

No adjustment has been made to the net loss for charges, gains, losses and accretion related to Series A, B and C CPS, Series A-1 Convertible Preferred Stock and convertible promissory notes, as the effect would be anti-dilutive due to the net loss. The following outstanding stock options and warrants (on an as-converted into common stock basis) and shares issuable or contingently issuable upon conversion of restricted stock, Series A, B and C CPS, Series A-1 Convertible Preferred Stock and convertible promissory notes were excluded from the computation of diluted net loss per share attributable to holders of common stock as they had antidilutive effects for the years ended December 31, 2011 and 2010:

	Year Ended December 31,	
	<u>2011</u>	<u>2010</u>
Common share equivalents issuable upon exercise of common stock options	247,294	1,035,155
Common share equivalents issuable upon exercise of common stock warrants	—	182,929
Shares issuable upon vesting of restricted stock	54,082	30,784
Shares issuable upon conversion of Series A CPS	23,844,479	1,871,899
Shares issuable upon conversion of Series B CPS	9,263,548	1,278,224
Shares issuable upon conversion of Series C CPS	2,631,285	—
Shares issuable upon conversion of Series A-1 Convertible Preferred Stock	17,788,797	—
Shares issuable upon conversion of convertible promissory notes	<u>16,231,668</u>	<u>—</u>
Total common share equivalents excluded from denominator for diluted earnings per share computation	<u>70,061,153</u>	<u>4,398,991</u>

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

NOTE 14. Segment Information, Geographic Data, and Significant Customers

Operating segments are defined as component of the Company's business for which separate financial information is available that is evaluated by the Company's chief operating decision maker in deciding how to allocate resources and assessing performance. The Company presently has only one operating segment.

Revenue by geographic areas for the years ended December 31, 2011 and 2010, are as follows:

	Year Ended December 31,	
	2011	2010
United States	\$ 207,045	\$ 551,927
International:		
Canada	—	50,547
Japan	—	893,498
Asia - other	18,515	125,795
Europe ⁽¹⁾	297,371	545,522
Total revenue	\$ 522,931	\$ 2,167,289

(1) Sales to Europe in 2011 and 2010 included approximately \$270,000 and \$332,000 to Belgium and Luxembourg, respectively.

Revenues are attributed to geographical areas based on where the Company's products are shipped.

Long-lived assets by geographic areas as of December 31, 2011 and 2010, are as follows:

	2011	2010
United States	\$ 1,387,283	\$ 1,040,098
Malaysia	326,807	151,742
Total long-lived assets	\$ 1,714,090	\$ 1,191,840

At December 31, 2011, three customers accounted for 38%, 33% and 10% of accounts receivable. At December 31, 2010, four different customers accounted for 39%, 26%, 19% and 10% of accounts receivable. For the year ended December 31, 2011, three customers accounted for 52%, 13% and 11% of total revenues. For the year ended December 31, 2010, one of these customers accounted for 12% of revenue, and two different customers accounted for 40% and 15% of total revenues.

NOTE 15. Benefit Plan

The Company has a 401(k) plan that allows eligible U.S. employees to contribute up to 50 percent of their annual compensation to the plan, subject to certain limitations. Each employee directs their contributions, which vest immediately, across a series of mutual funds. The Company does not make matching contributions and the costs of administering the 401(k) plan are not significant.

NOTE 16. Contingencies

From time to time the Company may be involved in claims arising in connection with its business. Based on information currently available, the Company believes that the amount, or range, of reasonably possible losses in connection with any pending actions against it, in excess of established reserves, in the aggregate, not to be material to its consolidated financial condition or cash flows. However, losses may be material to the Company's operating results for any particular future period, depending on the level of income for such period.

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

NOTE 17. Quarterly Financial Data (Unaudited)

Selected summarized quarterly financial information for fiscal 2011 and 2010 is as follows:

	Year Ended December 31, 2011			
	First	Second	Third	Fourth
Revenue	\$ 351,032	\$ 44,905	\$ 89,088	\$ 37,906
Gross profit (loss)	\$ 210,083	\$ 30,963	\$ (403,158)	\$ (716,861)
Net gains (losses) on derivative revaluations	\$ 381,829	\$ (1,619,723)	\$ 8,624,976	\$ 1,884,903
Net income (loss)	\$ (3,803,829)	\$ (9,209,548)	\$ 3,580,921	\$ (3,712,622)
Net income (loss) attributable to common stockholders	\$ (3,867,949)	\$ (18,590,846)	\$ 3,222,282	\$ (3,601,540)
Net income (loss) per share - basic	\$ (0.09)	\$ (0.45)	\$ 0.08	\$ (0.09)
Net income (loss) per share - diluted	\$ (0.09)	\$ (0.45)	\$ 0.03	\$ (0.09)

	Year Ended December 31, 2010			
	First	Second	Third	Fourth
Revenue	\$ 389,785	\$ 431,894	\$ 633,241	\$ 712,369
Gross profit	\$ 253,930	\$ 296,000	\$ 321,194	\$ 434,099
Net gains (losses) on derivative revaluations	\$ (1,886,692)	\$ 3,567,168	\$ (1,541,477)	\$ 504,712
Net income (loss)	\$ (4,529,265)	\$ 724,496	\$ (5,224,763)	\$ (3,057,849)
Net income (loss) attributable to common stockholders	\$ (4,594,788)	\$ 645,706	\$ (5,732,701)	\$ (3,121,333)
Net income (loss) per share - basic and diluted	\$ (0.14)	\$ 0.02	\$ (0.14)	\$ (0.08)

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

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

None.

Item 9A. Controls and Procedures

As of the end of the period covered by this Report, management performed, with the participation of our principal executive officer and principal financial officer, an evaluation of the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Our disclosure controls and procedures are those designed to ensure that information required to be disclosed in the report we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosures. Based on the evaluation and the identification of the material weaknesses in internal control over financial reporting described below, our principal executive officer and principal financial officer concluded that, as of December 31, 2011, the Company's disclosure controls and procedures were not effective.

Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Internal control over financial reporting is a process designed by, or under the supervision of, our principal executive officer and principal financial officer, and effected by our Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external reporting purposes in accordance with generally accepted accounting principles (GAAP). Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projection of any evaluation of effectiveness to future periods is subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management has conducted, with the participation of our principal executive officer and principal financial officer, an assessment, including testing of the effectiveness, of our internal control over financial reporting as of December 31, 2011. Management's assessment of internal control over financial reporting was conducted using the criteria of the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in Internal Control – Integrated Framework while utilizing the additional guidance contained in COSO's Internal Control over Financial Reporting – Guidance for Smaller Public Companies.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis. In connection with management's assessment of our internal control over financial reporting as required under Section 404 of the Sarbanes-Oxley Act of 2002, we identified the following material weakness in our internal control over financial reporting as of December 31, 2011:

We have not adequately divided, or compensated for, incompatible functions among personnel to reduce the risk that a potential material misstatement of the financial statements would occur without being prevented or detected.

The material weakness described above was previously identified in Item 9A in our Report on Form 10-K for the year ended December 31, 2010, which also identified one other material weakness with respect to our inability to record the correct valuation and related disclosures relating to Series B Convertible Preference Shares of our subsidiary. This material weakness has been remediated.

Because of the material weakness noted above, management has concluded that we did not maintain effective internal control over financial reporting as of December 31, 2011, based on the criteria of COSO in Internal Control – Integrated Framework.

Remediation of Material Weaknesses in Internal Control Over Financial Reporting

Management is in the process of addressing its material weakness in an effort to improve its system of internal control over financial reporting through the following actions:

We have hired additional and more qualified staff within the finance department. Nevertheless, as a small company, we do not have the resources to fund sufficient staff to ensure a complete segregation of responsibilities within the accounting function, and we remain reliant on management oversight.

We believe that the foregoing initiative will enable us to improve our internal controls over financial reporting. Management is committed to continuing efforts aimed at improving the design adequacy and operational effectiveness of its system of internal controls. The remediation efforts noted above will be subject to the Company's internal control assessment, testing and evaluation process.

This Report does not include an attestation report of the Company's registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by the Company's registered public accounting firm pursuant to temporary rules of the SEC that permit the Company to provide only management's report in this Report.

Changes in Internal Control over Financial Reporting

There have not been any changes in the Company's internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information with respect to this item is incorporated by reference from our definitive proxy statement (or amendment to this Annual Report on Form 10-K) to be filed with the Commission within 120 days of the end of the fiscal year ended December 31, 2011.

Item 11. Executive Compensation

Information with respect to this item is incorporated by reference from our definitive proxy statement (or amendment to this Annual Report on Form 10-K) to be filed with the Commission within 120 days of the end of the fiscal year ended December 31, 2011.

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

Information with respect to this item is incorporated by reference from our definitive proxy statement (or amendment to this Annual Report on Form 10-K) to be filed with the Commission within 120 days of the end of the fiscal year ended December 31, 2011.

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

Information with respect to this item is incorporated by reference from our definitive proxy statement (or amendment to this Annual Report on Form 10-K) to be filed with the Commission within 120 days of the end of the fiscal year ended December 31, 2011.

Item 14. Principal Accountant Fees and Services

Information with respect to this item is incorporated by reference from our definitive proxy statement (or amendment to this Annual Report on Form 10-K) to be filed with the Commission within 120 days of the end of the fiscal year ended December 31, 2011.

PART IV**Item 15. Exhibits and Financial Statement Schedules****Financial Statement Schedules**

All financial statement schedules are omitted because they are not applicable or the required information is shown in the financial statements or notes thereto.

Exhibits

The following Exhibits are being filed with this Annual Report on Form 10-K.

In reviewing the agreements included as exhibits to this Form 10-K, please remember that they are included to provide you with information regarding their terms and are not intended to provide any other factual or disclosure information about the Company or the other parties to the agreements. The agreements may contain representations and warranties by each of the parties to the applicable agreement. These representations and warranties have been made solely for the benefit of the parties to the applicable agreement and:

- *should not in all instances be treated as categorical statements of fact, but rather as a way of allocating the risk to one of the parties if those statements prove to be inaccurate;*
- *have been qualified by disclosures that were made to the other party in connection with the negotiation of the applicable agreement, which disclosures are not necessarily reflected in the agreement;*
- *may apply standards of materiality in a way that is different from what may be viewed as material to you or other investors; and*
- *were made only as of the date of the applicable agreement or such other date or dates as may be specified in the agreement and are subject to more recent developments.*

Accordingly, these representations and warranties may not describe the actual state of affairs as of the date they were made or at any other time. Additional information about the Company may be found elsewhere in this Form 10-K and the Company's other public filings, which are available without charge through the SEC's website at <http://www.sec.gov>. See "Available Information."

Exhibit Number	Exhibit Description	Filed Herewith	Incorporated by Reference		
			Form	Period Ending	Exhibit Filing Date
2.1	Agreement and Plan of Merger and Reorganization, dated as of May 31, 2007, by and among WBSI, WaferGen Acquisition Corp., and WaferGen, Inc.		8-K		2.1 6/5/2007
2.2	Certificate of Merger of WaferGen Acquisition Corp. with and into WaferGen, Inc., dated May 31, 2007		8-K		2.2 1/16/2008
3.1	Certificate of Incorporation of WBSI		SB-2		3.1 8/9/2006
3.2	Certificate of Amendment to the Certificate of Incorporation of WBSI, dated January 31, 2007		8-K		3.1 2/1/2007
3.3	Bylaws of WBSI		SB-2		3.2 8/9/2006
3.4	Certificate of Designation of Preferences, Rights and Limitations of Series A-1 and Series A-2 Convertible Preferred Stock		8-K		3.1 6/1/2011
3.5	First Amendment to Bylaws of WBSI		8-K		3.2 6/1/2011
3.6	Second Amendment to Bylaws of WBSI		8-K		3.2 10/19/2011
10.1 †	Form of Warrants, made as of May 5, 2007, to purchase up to an aggregate of 115,424 shares of WBSI's Common Stock		10-K	12/31/09	10.1 3/22/10
10.2	Form of Common Stock Purchase Warrant issued to investors in a private placement, the initial closing of which was held on May 31, 2007		8-K		10.21 6/5/2007

[Table of Contents](#)

Exhibit Number	Exhibit Description	Filed Herewith	Incorporated by Reference		
			Form	Period Ending	Filing Date
10.3	Form of Warrant issued to Placement Agent in connection with a private placement, the initial closing of which was held on May 31, 2007		8-K	10.22	6/5/2007
10.4 †	Employment Agreement dated May 31, 2007, between WBSI and Alnoor Shivji		8-K	10.26	6/5/2007
10.5	Securities Purchase Agreement, dated May 19, 2008, by and among WaferGen Bio-systems, Inc. and the purchasers identified on the signature pages thereto		8-K	10.1	5/21/2008
10.6	Form of Common Stock Purchase Warrant issued to investors identified in the Securities Purchase Agreement dated May 19, 2008		8-K	10.2	5/21/2008
10.7 †	WaferGen Bio-systems, Inc. 2008 Stock Incentive Plan, as amended		8-K	10.1	1/5/2012
10.8 †	Form of Non-Qualified Stock Option award under 2008 Stock Incentive Plan		10-K	12/31/2008	10.35 3/27/2009
10.9	Share Subscription Agreement and Shareholders' Agreement dated May 8, 2008, by and among WaferGen Bio-systems, Inc., Malaysian Technology Development Corporation Sdn. Bhd. and WaferGen Biosystems (M) Sdn. Bhd.		10-Q	9/30/2008	10.1 11/14/2008
10.10	Put Agreement dated May 28, 2008, by and among WaferGen Bio-systems, Inc. and Holders of the Series A Redeemable Convertible Preference Shares in WaferGen Biosystems (M) Sdn. Bhd.		10-Q	9/30/2008	10.2 11/14/2008
10.11	Put Option Agreement dated May 28, 2008, by and among Alnoor Shivji and Malaysian Technology Development Corporation Sdn. Bhd.		10-Q	9/30/2008	10.3 11/14/2008
10.12 †	Letter Agreement dated January 16, 2009, by and between WBSI and Alnoor Shivji		10-K	12/31/2008	10.39 3/27/2009
10.13	Form of WBSI Distribution Agreement		10-K	12/31/2008	10.42 3/27/2009
10.14	Share Subscription Agreement dated April 3, 2009, by and among WaferGen Bio-systems, Inc., WaferGen Biosystems (M) Sdn. Bhd., Prima Mahawangsa Sdn. Bhd. and Expedient Equity Ventures Sdn. Bhd.		8-K	10.1	4/14/2009
10.15	Put Agreement dated April 3, 2009, by and among WaferGen Bio-systems, Inc. and Holders of Series B Redeemable Convertible Preference Shares in WaferGen Biosystems (M) Sdn. Bhd.		8-K	10.2	4/14/2009
10.16	Form of Put Option Agreement dated April 3, 2009, by and among Alnoor Shivji and Holders of Series B Redeemable Convertible Preference Shares in WaferGen Biosystems (M) Sdn. Bhd.		8-K	10.3	4/14/2009
10.17	Deed of Adherence to the Share Subscription and Shareholders' Agreement dated May 8, 2008, by and among WaferGen Bio-systems, Inc., WaferGen Biosystems (M) Sdn. Bhd., Prima Mahawangsa Sdn. Bhd., Expedient Equity Ventures Sdn. Bhd. and Malaysian Technology Development Corporation Sdn. Bhd.		10-Q	3/31/2009	10.4 5/12/2009
10.18	Form of Subscription Agreement between WaferGen Bio-systems, Inc., and the investors party thereto in connection with the Company's 2009 private placement offering of units of securities		10-Q	6/30/2009	10.5 8/10/2009
10.19	Form of Warrants to purchase shares of Common Stock of the Company, issued June 16, 2009, to investors in the Company's 2009 private placement offering of units of securities		10-Q	6/30/2009	10.6 8/10/2009
10.20	Registration Rights Agreement, dated June 16, 2009, between WaferGen Bio-systems, Inc., and the investors party thereto in connection with the Company's 2009 private placement offering of units of securities		10-Q	6/30/2009	10.7 8/10/2009
10.21	Form of Warrant to purchase shares of Common Stock of the Company, issued to Spencer Trask Ventures, Inc. and certain related parties in connection with the Company's 2009 private placement offering of units of securities		10-Q	6/30/2009	10.8 8/10/2009
10.22	Share Subscription Agreement dated July 1, 2009, by and among WaferGen Bio-systems, Inc., WaferGen Biosystems (M) Sdn. Bhd. and Kumpulan Modal Perdana Sdn. Bhd.		10-Q	9/30/2009	10.1 11/13/2009
10.23	Put Agreement dated July 1, 2009, by and among WaferGen Bio-systems, Inc. and Holders of Series B Redeemable Convertible Preference Shares in WaferGen Biosystems (M) Sdn. Bhd.		10-Q	9/30/2009	10.2 11/13/2009

[Table of Contents](#)

Exhibit Number	Exhibit Description	Filed Herewith	Incorporated by Reference		
			Form	Period Ending	Filing Date
10.24	Put Option Agreement dated July 1, 2009, by and among Alnoor Shivji and Kumpalan Modal Perdana Sdn. Bhd.		10-Q	9/30/2009	10.3 11/13/2009
10.25	Deed of Adherence dated July 1, 2009, to the Share Subscription and Shareholders' Agreement dated May 8, 2008, and the Share Subscription Agreement dated April 3, 2009, by and among WaferGen Bio-systems, Inc., WaferGen Biosystems (M) Sdn. Bhd., Prima Mahawangsa Sdn. Bhd., Expedient Equity Ventures Sdn. Bhd., Malaysian Technology Development Corporation Sdn. Bhd. and Kumpalan Modal Perdana Sdn. Bhd.		10-Q	9/30/2009	10.4 11/13/2009
10.26 †	Employment Agreement, effective October 29, 2009, by and between the Company and Mona Chadha		10-Q	9/30/2009	10.5 11/13/2009
10.27	Lease Agreement by and between WaferGen, Inc. and LBA Realty Fund III-Company VII, LLC dated October 22, 2009		10-Q	9/30/2009	10.6 11/13/2009
10.28	Form of Subscription Agreement between WaferGen Bio-systems, Inc., and the investors party thereto in connection with the Company's December 2009 and January 2010 private placement offering of units of securities		S-1		10.58 3/2/2010
10.29	Form of Warrants to purchase shares of Common Stock of the Company, issued December 23, 2009, to investors in the Company's December 2009 and January 2010 private placement offering of units of securities		S-1		10.59 3/2/2010
10.30	Registration Rights Agreement, dated December 23, 2009, between WaferGen Bio-systems, Inc., and the investors party thereto in connection with the Company's December 2009 and January 2010 private placement offering of units of securities		S-1		10.60 3/2/2010
10.31	Securities Purchase Agreement, dated July 1, 2010, between WaferGen Bio-systems, Inc. and each investor party thereto in connection with the Company's July 2010 offering of units of securities		8-K		10.1 7/8/2010
10.32	Form of Warrants to purchase shares of Common Stock of the Company, issued July 7, 2010, to investors in the Company's July 2010 offering of units of securities		8-K		4.1 7/8/2010
10.33	Form of Warrant to purchase shares of Common Stock of the Company, issued July 7, 2010, to placement agents and certain related parties in connection with the Company's July 2010 offering of units of securities		10-Q	6/30/2010	10.3 8/16/2010
10.34 †	Employment Agreement, effective September 3, 2010, by and between the Company and Donald Huffman		10-Q	9/30/2010	10.2 11/15/2010
10.35	Loan and Security Agreement, dated December 7, 2010, between Oxford Finance Corporation, Wafergen Inc. and WaferGen Bio-systems, Inc.		8-K		10.1 12/13/2010
10.36	Warrant to purchase shares of Common Stock of the Company, issued December 7, 2010, to Oxford Finance Corporation		8-K		10.2 12/13/2010
10.37	Share Subscription Agreement dated December 14, 2010, by and among WaferGen Bio-systems, Inc., WaferGen Biosystems (M) Sdn. Bhd. and Malaysian Technology Development Corporation Sdn. Bhd.		8-K		10.1 12/15/2010
10.38	Put Agreement dated December 14, 2010, by and among WaferGen Bio-systems, Inc. and Malaysian Technology Development Corporation Sdn. Bhd.		8-K		10.2 12/15/2010
10.39	Amended and Restated Shareholders' Agreement dated December 14, 2010, by and among WaferGen Bio-systems, Inc., WaferGen Biosystems (M) Sdn. Bhd., Malaysian Technology Development Corporation Sdn. Bhd. and Prima Mahawangsa Sdn. Bhd.		8-K		10.3 12/15/2010
10.40	Purchase Agreement, dated as of May 25, 2011, by and among WaferGen Bio-systems, Inc. and the investors signatory thereto		8-K		10.1 6/1/2011
10.41	Registration Rights Agreement, dated as of May 27, 2011, by and among WaferGen Bio-systems, Inc. and the purchasers signatory thereto		8-K		10.2 6/1/2011
10.42	Form of Convertible Promissory Notes, issued May 27, 2011, to investors in the Company's May 2011 private placement offering		8-K		10.3 6/1/2011
10.43	Form of Warrants to purchase shares of Common Stock of the Company, issued May 27, 2011, to investors in the Company's May 2011 private placement offering		8-K		10.4 6/1/2011

[Table of Contents](#)

Exhibit Number	Exhibit Description	Filed Herewith	Incorporated by Reference		
			Form	Period Ending	Filing Date
10.44	Letter Agreement, dated as of May 27, 2011, by and among WaferGen Bio-systems, Inc. and the investors signatory thereto		10-Q	6/30/2011	10.1 9/12/2011
10.45	Omnibus Amendment No. 1 to Convertible Promissory Notes, dated as of September 30, 2011, by and among WaferGen Bio-systems, Inc. and the investors signatory thereto		8-K		10.1 10/6/2011
10.46	Termination Letter, dated as of September 30, 2011, by and among WaferGen Bio-systems, Inc. and the parties signatory thereto		8-K		10.3 10/6/2011
10.47 †	Employment Separation Agreement, dated October 19, 2011 by and among Alnoor Shivji and WaferGen Bio-systems, Inc.		10-Q	9/30/2011	10.7 11/21/2011
10.48	Letter Agreement Regarding Extension of Time to Exercise Put Option and Related Matters, entered into on December 9, 2011, by and among WaferGen Bio-systems, Inc., WaferGen Biosystems (M) Sdn Bhd and Malaysian Technology Development Corporation Sdn Bhd.		8-K		10.1 12/15/2011
10.49	Letter Agreement, dated as of January 12, 2012, by and among WaferGen Bio-systems, Inc. and the parties signatory thereto		8-K		10.1 1/13/2012
10.50 †	Executive Employment Agreement, dated as of March 8, 2012, by and between Ivan Trifunovich and WaferGen Bio-systems, Inc.		8-K		10.1 3/9/2012
21.1	Subsidiaries of the Registrant	X			
23.1	Consent of Independent Registered Public Accounting Firm	X			
23.2	Consent of Independent Registered Public Accounting Firm	X			
31.1	Rule 13a-14(a)/15d-14(a) Certification of principal executive officer	X			
31.2	Rule 13a-14(a)/15d-14(a) Certification of principal financial officer	X			
32.1	Section 1350 Certification of principal executive officer (<i>This certification is being furnished and shall not be deemed "filed" with the SEC for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and shall not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act, except to the extent that the Registrant specifically incorporates it by reference.</i>)	X			
32.1	Section 1350 Certification of principal financial officer (<i>This certification is being furnished and shall not be deemed "filed" with the SEC for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and shall not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act, except to the extent that the Registrant specifically incorporates it by reference.</i>)	X			
101 §	The following financial information from the Company's Quarterly Report on Form 10-K for the period ended December 31, 2011, formatted in Extensible Business Reporting Language (XBRL): (i) the Consolidated Balance Sheets at December 31, 2011 and 2010, (ii) the Consolidated Statements of Operations and Comprehensive Income (Loss) for the years ended December 31, 2011 and 2010, (iii) the Consolidated Statements of Stockholders' Equity (Deficit) for the two years ended December 31, 2011, (iv) the Consolidated Statements of Cash Flows for the years ended December 31, 2011 and 2010, and (v) Notes to Consolidated Financial Statements.	X			

† Indicates a management contract or compensatory plan or arrangement.

§ Pursuant to Rule 406T of Regulation S-T, the XBRL related information in Exhibit 101 to this Annual Report on Form 10-K shall not be deemed to be "filed" for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and shall not be deemed part of a registration statement, prospectus or other document filed under the Securities Act or the Exchange Act, except as shall be expressly set forth by specific reference in such filings.

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.

WAFERGEN BIO-SYSTEMS, INC.

By: /s/ IVAN TRIFUNOVICH
Ivan Trifunovich
Chief Executive Officer

Date: March 23, 2012

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 and on the dates indicated.

<u>SIGNATURE</u>	<u>TITLE</u>	<u>DATE</u>
<u>/s/ IVAN TRIFUNOVICH</u> Ivan Trifunovich	President, Chief Executive Officer (principal executive officer) and Director	March 23, 2012
<u>/s/ DONALD HUFFMAN</u> Donald Huffman	Chief Financial Officer (principal financial officer and principal accounting officer)	March 23, 2012
<u>/s/ ALNOOR SHIVJI</u> Alnoor Shivji	Chairman of the Board	March 23, 2012
<u>/s/ ROBERT CORADINI</u> Robert Coradini	Director	March 23, 2012
<u>/s/ SCOTT DAVIDSON</u> Scott Davidson	Director	March 23, 2012
<u>/s/ DR. R. DEAN HAUTAMAKI</u> Dr. R. Dean Hautamaki	Director	March 23, 2012
<u>/s/ JOEL KANTER</u> Joel Kanter	Director	March 23, 2012
<u>/s/ MAKOTO KANESHIRO</u> Makoto Kaneshiro	Director	March 23, 2012
<u>/s/ JOSEPH PESCE</u> Joseph Pesce	Director	March 23, 2012
<u>/s/ DR. TIMOTHY TRICHE</u> Dr. Timothy Triche	Director	March 23, 2012

EXHIBIT INDEX

Exhibit Number	Exhibit Description
21.1	Subsidiaries of the Registrant
23.1	Consent of Independent Registered Public Accounting Firm
23.2	Consent of Independent Registered Public Accounting Firm
31.1	Rule 13a-14(a)/15d-14(a) Certification of principal executive officer
31.2	Rule 13a-14(a)/15d-14(a) Certification of principal financial officer
32.1	Section 1350 Certification of principal executive officer <i>(This certification is being furnished and shall not be deemed “filed” with the SEC for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and shall not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act, except to the extent that the Registrant specifically incorporates it by reference.)</i>
32.2	Section 1350 Certification of principal financial officer <i>(This certification is being furnished and shall not be deemed “filed” with the SEC for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and shall not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act, except to the extent that the Registrant specifically incorporates it by reference.)</i>
101 §	The following financial information from the Company’s Quarterly Report on Form 10-K for the period ended December 31, 2011, formatted in Extensible Business Reporting Language (XBRL): (i) the Consolidated Balance Sheets at December 31, 2011 and 2010, (ii) the Consolidated Statements of Operations and Comprehensive Income (Loss) for the years ended December 31, 2011 and 2010, (iii) the Consolidated Statements of Stockholders’ Equity (Deficit) for the two years ended December 31, 2011, (iv) the Consolidated Statements of Cash Flows for the years ended December 31, 2011 and 2010, and (v) Notes to Consolidated Financial Statements.

§ Pursuant to Rule 406T of Regulation S-T, the XBRL related information in Exhibit 101 to this Annual Report on Form 10-K shall not be deemed to be “filed” for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and shall not be deemed part of a registration statement, prospectus or other document filed under the Securities Act or the Exchange Act, except as shall be expressly set forth by specific reference in such filings.

SUBSIDIARIES OF THE REGISTRANT

<u>Name</u>	<u>Jurisdiction</u>
Wafergen, Inc.	Delaware
WaferGen Biosystems (M) Sdn. Bhd.	Malaysia
WaferGen Biosystems R & D Sdn. Bhd. (Inactive)	Malaysia
WaferGen Biosystems Europe S. a. r.l.	Luxembourg

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statements (No. 333-152597, 333-164558, 333-170029 and 333-180287) on Form S-8 and in the Registration Statement (No. 333-167165) on Form S-3 of WaferGen Bio-systems, Inc. and subsidiaries of our report dated March 23, 2012 relating to our audit of the consolidated financial statements, which is incorporated in this Annual Report on Form 10-K of WaferGen Bio-systems, Inc. and subsidiaries for the year ended December 31, 2011.

/s/ SingerLewak LLP

San Jose, California

March 23, 2012

Consent of Independent Registered Public Accounting Firm

We have issued our report dated March 31, 2011 (except for Notes 1 and 2 for which the date is March 23, 2012), with respect to the consolidated financial statements included in the Annual Report of WaferGen Bio-systems, Inc. on Form 10-K for the year ended December 31, 2010. We hereby consent to the incorporation by reference of said report in the Registration Statements of WaferGen Bio-systems, Inc. on Form SB-2 (File No. 333-146239), Forms S-1 (File Nos. 333-162470, 333-165155, and 333-175507), Form S-3 (File No. 333-167165), and Forms S-8 (File Nos. 333-152597, 333-164558, 333-170029 and 333-180287).

/s/ Rowbotham and Company LLP

San Francisco, California
March 23, 2012

CERTIFICATION

I, Ivan Trifunovich, certify that:

1. I have reviewed this annual report on Form 10-K of WaferGen Bio-systems, 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 registrant as of, and for, the periods presented in this report;
4. The registrant'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 registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting;
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant'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 registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 23, 2012

/s/ IVAN TRIFUNOVICH
Ivan Trifunovich
Chief Executive Officer
(principal executive officer)

CERTIFICATION

I, Donald Huffman, certify that:

1. I have reviewed this annual report on Form 10-K of WaferGen Bio-systems, 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 registrant as of, and for, the periods presented in this report;
4. The registrant'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 registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting;
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant'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 registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 23, 2012

/s/ DONALD HUFFMAN
Donald Huffman
Chief Financial Officer
(principal financial officer)

CERTIFICATION
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ENACTED BY
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350), I, Ivan Trifunovich, certify that:

1. The Annual Report of WaferGen Bio-systems, Inc. (the "Company") on Form 10-K for the year ended December 31, 2011 (the "Report") as filed with the Securities and Exchange Commission as of the date hereof, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 23, 2012

/s/ IVAN TRIFUNOVICH
Ivan Trifunovich
Chief Executive Officer
(principal executive officer)

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to WaferGen Bio-systems, Inc., and will be retained by WaferGen Bio-systems, Inc., and furnished to the Securities and Exchange Commission or its staff upon request.

CERTIFICATION
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ENACTED BY
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350), I, Donald Huffman, certify that:

1. The Annual Report of WaferGen Bio-systems, Inc. (the "Company") on Form 10-K for the year ended December 31, 2011 (the "Report") as filed with the Securities and Exchange Commission as of the date hereof, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 23, 2012

/s/ DONALD HUFFMAN
Donald Huffman
Chief Financial Officer
(principal financial officer)

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to WaferGen Bio-systems, Inc., and will be retained by WaferGen Bio-systems, Inc., and furnished to the Securities and Exchange Commission or its staff upon request.