As filed with the Securities and Exchange Commission on April 27, 2012

No. 333-175507

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

POST EFFECTIVE AMENDMENT NO. 1

TO FORM S-1/A
(Post Effective Amendment No. 1)

REGISTRATION STATEMENT
UNDER THE SECURITIES ACT OF 1933

WAFERGEN BIO-SYSTEMS, INC.
(Exact name of registrant as specified in its charter)

Nevada	**3826**	**90-0416683**
(State or other jurisdiction of incorporation or organization)	*(Primary Standard Industrial Classification Code Number)*	*(I.R.S. Employer Identification Number)*

7400 Paseo Padre Parkway
Fremont, CA 94555
(510) 651-4450
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Ivan Trifunovich, President and Chief Executive Officer
7400 Paseo Padre Parkway
Fremont, CA 94555
(510) 651-4450
(Name, address, including zip code, and telephone number, including area code, of agent for service)

With Copies to:

John W. Campbell III, Esq.
John M. Rafferty, Esq.
Morrison & Foerster LLP
425 Market Street
San Francisco, California 94105
(415) 268-7000

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this registration statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box. ☑

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

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 Securities Exchange Act of 1934. (Check one):

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

This post-effective amendment shall hereafter become effective in accordance with Section 8(c) of the Securities Act of 1933 on such date as the Commission, acting pursuant to said Section 8(c), shall determine.

The information in this prospectus is not complete and may be changed. The selling stockholders may not sell these securities under this prospectus until the registration statement of which it is a part and filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED APRIL 27, 2012

WAFERGEN BIO-SYSTEMS, INC.

PROSPECTUS

Up to 112,346,479 Shares of Common Stock

This prospectus relates to the offering by the selling stockholders of WaferGen Bio-systems, Inc. of up to 112,346,479 shares of common stock, par value $0.001 per share. These shares include 29,374,995 shares of common stock issuable upon the conversion of 2,937,499.97 shares of Series A-1 Convertible Preferred Stock, 26,798,236 shares of common stock issuable upon the conversion of Convertible Promissory Notes with an aggregate face value of $15,275,000 and 56,173,248 shares of common stock issuable upon the exercise of warrants issued to the selling stockholders in connection with a private placement offering completed in May 2011 (the "May 2011 Private Placement"). The Series A-1 Convertible Preferred Stock, Convertible Promissory Notes and warrants were sold for an aggregate purchase price of $30,550,000.

The selling stockholders have advised us that they will sell the shares of common stock from time to time in the open market, on the OTC Bulletin Board, in privately negotiated transactions or a combination of these methods, at market prices prevailing at the time of sale, at prices related to the prevailing market prices or at negotiated prices.

We will not receive any proceeds from the sale of common stock by the selling stockholders.

Our common stock is traded on the OTC Bulletin Board under the symbol "WGBS.OB." On April 24, 2012, the closing price of our common stock was $0.14 per share.

Investing in our common stock involves a high degree of risk. Before making any investment in our common stock, you should read and carefully consider the risks described in this prospectus under "Risk Factors" beginning on page 6 of this prospectus.

You should rely only on the information contained in this prospectus or any prospectus supplement or amendment thereto. We have not authorized anyone to provide you with different information.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

This prospectus is dated , 2012

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PROSPECTUS SUMMARY

This summary does not contain all of the information that should be considered before investing in our common stock. Investors should read the entire prospectus carefully, including the more detailed information regarding our business, the risks of purchasing our common stock discussed in this prospectus under "Risk Factors" beginning on page 6 of this prospectus and our financial statements and the accompanying notes beginning on page F-1 of this prospectus.

As used in this prospectus, unless content requires otherwise, "WaferGen," our "Company," "we," "us," and "our" 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.

Our Company

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 DNA (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") 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 sequencing. 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 Gleevac, 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.

We employ 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.

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.

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 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.

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.

For more information regarding our business, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business,” included elsewhere in this prospectus.

Summary Risk Factors

We are subject to a number of risks, including risks that may prevent us from achieving our business objectives or may adversely affect our business, financial condition, results of operations, cash flows and prospects. You should carefully consider these risks, including the risks discussed in the section entitled “Risk Factors,” before investing in our common stock. Risks relating to our business include, among others:

- 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 have experienced a decline in sales, and we may be unable to generate sufficient 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 have a history of losses that may continue in the future and we may not be able to continue as a going concern;
- our business depends on research and development spending levels for pharmaceutical and biotechnology companies and academic and governmental research institutions, and our success and our operating results will substantially depend on these customers;
- we expect that our results of operations will fluctuate, which could cause our stock price to decline;
- if we lose our key personnel or are unable to attract and retain additional qualified personnel, we may be unable to achieve our goals; and
- 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, which would limit our ability to compete and achieve and maintain profitability, and if we cannot continuously develop and commercialize new products, our revenue may not grow as intended.

Corporate Information

Wafergen, Inc. was incorporated in Delaware on October 22, 2002. WaferGen Bio-systems, Inc. was incorporated under the laws of the State of Nevada on August 4, 2005 under the name Scuttlebutt Yachts, Inc., subsequently renamed La Burbuja Cafe, Inc. on June 20, 2006 and WaferGen Bio-systems, Inc. on January 31, 2007 in anticipation of the Merger with Wafergen, Inc. We also have subsidiaries in Malaysia and Luxembourg. Our principal executive offices are located at 7400 Paseo Padre Parkway, Fremont, California 94555. The telephone number at our principal executive offices is (510) 651-4450. Our website address is www.wafergen.com. Information contained on our website is not deemed part of this prospectus, other than our Code of Business Conduct and Ethics, which is incorporated by reference.

The Offering

This prospectus relates to the resale from time to time by the selling stockholders identified in this prospectus of up to 112,346,479 shares of our common stock issuable upon the conversion or exercise of Series A-1 Convertible Preferred Stock, Convertible Promissory Notes and warrants to purchase our common stock were purchased by the selling stockholders in a private placement made exclusively to accredited investors completed in May 2011. No shares are being offered for sale by us.

Common stock offered by the selling stockholders	112,346,479
Common stock to be outstanding after the offering	153,995,881
Use of Proceeds	We will not receive any proceeds from the sale of common stock offered by the selling stockholders under this prospectus.
Risk Factors	See the section titled “Risk Factors” and the other information included in this prospectus for a discussion of the factors you should consider carefully before deciding to invest in our common stock.
OTC Bulletin Board Symbol	“WGBS.OB”

The number of shares of common stock offered by the selling stockholders consists of:

- 29,374,995 shares of common stock issuable upon conversion of 2,937,499.97 outstanding shares of Series A-1 Convertible Preferred Stock;
- 26,798,236 shares of common stock issuable upon conversion of outstanding Convertible Promissory Notes with an aggregate face value of $15,275,000; and
- 56,173,248 shares of common stock issuable upon exercise of outstanding warrants.

The number of shares of our common stock to be outstanding after this offering is based on 41,649,402 shares outstanding as of March 31, 2012, assumes the issuance of 112,346,479 shares of our common stock upon the full conversion or exercise of 2,937,499.97 shares of Series A-1 Convertible Preferred Stock, $15,275,000 of Convertible Promissory Notes and warrants to purchase 56,173,248 shares of common stock held by the selling stockholders and excludes:

- 5,579,921 additional shares of common stock that will be issuable, as of November 27, 2014, upon the conversion of 2,937,499.97 outstanding shares of Series A-1 Convertible Preferred Stock, assuming the maximum accrual of unpaid dividends on such shares of Series A-1 Convertible Preferred Stock prior to conversion, including 1,255,137 additional shares of common stock issuable as of March 31, 2012;
- 5,096,019 additional shares of common stock that will be issuable, as of November 27, 2014, upon the conversion of Convertible Promissory Notes with an aggregate face value of $15,275,000, assuming the maximum accrual of unpaid interest on such Convertible Promissory Notes prior to conversion, including 1,152,762 additional shares of common stock issuable as of March 31, 2012;

- 7,381,160 shares of common stock issuable upon the exercise of outstanding options with exercise prices ranging from $0.0002 to $2.39 and a weighted average exercise price of $0.82 per share;
- 30,000 shares of common stock issuable upon the vesting of outstanding restricted stock units;
- 15,794,620 shares of common stock issuable upon the exercise of outstanding warrants with exercise prices ranging from $0.78 to $3.00 and a weighted average exercise price of $1.236 per share.
- 19,500,186 shares of common stock issuable, should we elect to pay the cash redemption amount of $2,519,424 in shares, upon the conversion of 888,888 outstanding Series A convertible preference shares issued by our Malaysian subsidiary, based on an average ten day trailing stock price of $0.152;
- 7,739,938 shares of common stock issuable upon the conversion of 444,444 outstanding Series B convertible preference shares issued by our Malaysian subsidiary, based on an average ten day trailing stock price of $0.152;
- 3,233,734 shares of common stock issuable upon the conversion of 3,233,734 outstanding Series C convertible preference shares issued by our Malaysian subsidiary;
- 1,077,911 shares of common stock issuable upon the conversion of 1,077,911 convertible preference shares issuable by our Malaysian subsidiary upon exercise by certain investors of an option to purchase such convertible preference shares at a price of $2.3193 per share; and
- 7,118,811 shares of common stock reserved for future issuance under our 2008 Stock Incentive Plan;

Background

Pursuant to the terms of securities purchase agreements which we entered into with certain of the selling stockholders, we raised approximately $30.55 million in gross proceeds in exchange for the issuance of 2,937,499.97 shares of Series A-1 Convertible Preferred Stock, each initially convertible into ten shares of our common stock, $15,275,000 in Convertible Promissory Notes initially convertible at $0.57 per share of our common stock and warrants to purchase 56,173,248 shares of our common stock. The preferred stock, convertible debt and related warrants were sold in a closing that occurred on May 27, 2011.

Oppenheimer, Inc. (“Oppenheimer”) acted as our principal selling agent in connection with the offering. In accordance with the terms of our selling agent agreement with Oppenheimer, we paid Oppenheimer and its designees cash commissions totaling approximately $2,120,125.

Each share of Series A-1 Convertible Preferred Stock may be converted into that number of shares of our common stock equal to the stated value of the Series A-1 Convertible Preferred Stock, which is initially $5.20, divided by $0.52. Each share of Series A-1 Convertible Preferred Stock carries a cumulative dividend rate of 5% per annum of its stated value per share through November 27, 2014, compounding quarterly. Any such dividends that are not declared payable by our Board of Directors will add to the stated value of the preferred stock, such that the Series A-1 Convertible Preferred Stock would convert into a total of 34,954,921 shares of our common stock assuming maximum accrual of unpaid dividends prior to conversion.

The outstanding principal amount under the Convertible Promissory Notes may be converted into Series A-2 Convertible Preferred Stock at a rate of $5.70 per share, and each share of Series A-2 Convertible Preferred Stock may be converted into that number of shares of our common stock equal to the stated value of the Series A-2 Convertible Preferred Stock, which is initially $5.70, divided by $0.57. The Convertible Promissory Notes accrue interest at a rate of 5% per annum, payable quarterly through November 27, 2014. However, at our election, such interest may be, in lieu of payment, added to the principal sum under the Convertible Promissory Notes, such that the Convertible Promissory Notes would convert into a total of 31,894,265 shares of our common stock assuming maximum accrual of unpaid interest prior to conversion.

The warrants issued to the selling stockholders have an exercise price of $0.62, a term of five-years and 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 our own stock, so they will be accounted for within Stockholders’ Equity. The warrants are immediately exercisable.

The purchase agreements further provide that, for as long as at least 50% of the shares of Series A Preferred or 50% of the aggregate principal amount of the Convertible Promissory Notes remain outstanding, we and each of the selling stockholders who is a current member of our management or board of directors shall use reasonable best efforts (including by voting (or consenting with respect thereto) any shares of common stock then owned by such selling stockholders accordingly) to ensure that one individual, as may be designated by Great Point Partners, LLC from time to time, is elected as a member of our board of directors. The number of individuals that may be designated by Great Point Partners, LLC was increased from one to two pursuant to a letter agreement dated January 12, 2012.

The issuances of securities described above are exempt from the registration requirements of the Securities Act of 1933, as amended (the "Securities Act"), pursuant to Section 4(2) thereof.

Plan of Distribution

This offering is not being underwritten. The selling stockholders will sell their shares of our common stock at prevailing market prices or privately negotiated prices. The selling stockholders themselves directly, or through their agents, or through their brokers or dealers, may sell their shares from time to time, in (i) privately negotiated transactions, (ii) in one or more transactions, including block transactions in accordance with the applicable rules of the OTC Bulletin Board or (iii) otherwise in accordance with the section of this prospectus entitled "Plan of Distribution." To the extent required, the specific shares to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agent, broker or dealer and any applicable commission or discounts with respect to a particular offer will be described in an accompanying prospectus. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 may be sold under Rule 144 rather than pursuant to this prospectus.

For additional information on the methods of sale, you should refer to the section of this prospectus entitled "Plan of Distribution," beginning on page 24.

RISK FACTORS

The following risk factors should be considered carefully in addition to the other information contained in this prospectus. This prospectus 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 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 prospectus, discuss some of the factors that could contribute to these differences.

The forward-looking statements made in this prospectus 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 prospectus 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.

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 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 "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 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 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 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;
- 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 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 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 April 24, 2012, 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 41,649,402 shares were issued and outstanding as of March 31, 2012, 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 March 31, 2012, (i) our 2,937,499.97 outstanding shares of Series A-1 Convertible Preferred Stock, absent the declaration of a dividends totaling $652,671, presently accrued but unpaid, would have been convertible into 30,630,137 shares of our common stock, (ii) we had outstanding convertible promissory notes with an initial aggregate face value of $15,275,000, which, after giving effect to interest paid in kind by addition to principal totaling $657,075, are convertible into 27,950,998 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 30,473,858 shares of our common stock, and (iv) we had 30,000 outstanding unvested restricted stock units, outstanding options to purchase an aggregate of 7,381,160 shares of our common stock and outstanding warrants and

comparable instruments to purchase an aggregate of 73,045,779 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, 4,324,784 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 March 31, 2012, and 3,943,257 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 March 31, 2012. 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 14.4% 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.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Information contained in this prospectus 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 our plans for sales growth and expectations of gross margin, expenses, new product introduction, and our 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” above and elsewhere in this prospectus, 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.

SELLING STOCKHOLDERS

This prospectus covers the resale from time to time by the selling stockholders identified in the table below of:

- Up to 29,374,995 shares of our common stock issuable upon the conversion of 2,937,499.97 shares of Series A-1 Convertible Preferred Stock sold in the May 2011 Private Placement;
- Up to 26,798,236 shares of our common stock issuable upon the conversion of Convertible Promissory Notes with an aggregate face value of $15,275,000 sold in the May 2011 Private Placement; and
- Up to 56,173,248 shares of our common stock issuable upon exercise of warrants sold in the May 2011 Private Placement.

Pursuant to registration rights agreements executed in connection with the May 2011 Private Placement, we have filed with the SEC a registration statement on Form S-1, of which this prospectus forms a part, under the Securities Act to register these resales. The selling stockholders identified in the table below may from time to time offer and sell under this prospectus any or all of the shares of common stock described under the column “Shares of Common Stock Being Offered in the Offering” in the table below.

The table below has been prepared based upon the information furnished to us by the selling stockholders. The selling stockholders identified below may have sold, transferred or otherwise disposed of some or all of their shares since the date on which the information in the following table is presented in transactions exempt from or not subject to the registration requirements of the Securities Act. Information concerning the selling stockholders may change from time to time and, if necessary, we will amend or supplement this prospectus accordingly. We cannot provide an estimate as to the number of shares of common stock that will be held by the selling stockholders upon termination of the offering covered by this prospectus because the selling stockholders may offer some or all of their shares of common stock under this prospectus.

The following table sets forth the name of each selling stockholder, the nature of any position, office or other material relationship, if any, which the selling stockholder has had, within the past three years, with us or with any of our predecessors or affiliates, and the number of shares of our common stock beneficially owned by the stockholder before this offering. The number of shares owned are those beneficially owned, as determined under the rules of the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose.

Under these rules, beneficial ownership includes any shares of common stock as to which a person has sole or shared voting power or investment power and any shares of common stock which the person has the right to acquire within 60 days through the exercise of any option, warrant or right, through conversion of any security or pursuant to the automatic termination of a power of attorney or revocation of a trust, discretionary account or similar arrangement. Unless otherwise indicated in the footnotes to the following table, each person named in the table has sole voting and investment power and that person’s address is: c/o WaferGen Bio-systems, Inc., 7400 Paseo Padre Parkway, Fremont, CA 94555.

We have assumed all shares of common stock reflected on the table will be sold from time to time in the offering covered by this prospectus. Because the selling stockholders may offer all or any portions of the shares of common stock listed in the table below, no estimate can be given as to the amount of those shares of common stock covered by this prospectus that will be held by the selling stockholders upon the termination of the offering.

Selling Stockholder	Shares of Common Stock Owned Before this Offering	Shares of Common Stock Underlying Convertible Securities Owned Before this Offering	Shares of Common Stock Being Offered in this Offering	Shares of Common Stock Owned Upon Completion of this Offering (a)	Percentage of Common Stock Outstanding Upon Completion of this Offering (b)
Biomedical Value Fund, L.P. (1)	0	15,314,396	15,158,854	155,542	*
Biomedical Institutional Value Fund, L.P. (2)	0	3,774,047	3,735,715	38,332	*
Biomedical Offshore Value Fund, Ltd. (3)	0	9,437,001	9,341,153	95,848	*
WS Investments III, LLC (4)	0	511,537	506,341	5,196	*
David J. Morrison (5)	0	255,787	253,189	2,598	*
Class D Series of GEF-PS, L.P. (6)	0	9,287,998	9,193,664	94,334	*
Lyrical Multi-Manager Fund, L.P. (7)	0	7,673,439	7,595,503	77,936	*
Jeffrey R. Jay, Trustee for the benefit of Thomas C. Jay QPERT (8)	0	743,044	735,497	7,547	*
Jeffrey R. Jay, Trustee for the benefit of Carolyn Jay Trust (9)	0	371,511	367,738	3,773	*
Jeffrey R. Jay, Trustee for the benefit of JR Jay Jr Trust (10)	0	371,511	367,738	3,773	*
Jeffrey R. Jay (11)	0	1,486,087	1,470,994	15,093	*
Paul Schimmel Rollover IRA (12)	0	928,789	919,356	9,433	*
Deerfield Private Design Fund II, L.P. (13)	0	11,686,150	11,567,459	118,691	*
Deerfield Private Design International II, L.P. (14)	0	13,391,426	13,255,415	136,011	*
Deerfield Special Situations Fund, L.P. (15)	0	9,780,255	9,680,921	99,334	*
Deerfield Special Situations Fund International, Limited (16)	0	15,297,321	15,141,953	155,368	*
Merlin Nexus III, LP (17)	0	9,287,991	9,193,657	94,334	*
The Shivji Family Trust dated June 12, 2000(18)	5,308,080	3,305,980	1,470,985	7,143,075	4.58%
Robert Coradini (19)	309,391	1,154,471	919,365	544,497	*
Joel Kanter (20)	25,000	487,768	367,745	145,023	*
The Kanter Family Foundation (21)	75,000	208,259	183,872	99,387	*
CIBC Trust Company (Bahamas) Limited (22)	550,000	1,117,260	919,365	747,895	*

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* Less than 1%

(a) Assumes all of the shares of common stock to be registered on the registration statement of which this prospectus is a part, including all shares of common stock underlying warrants held by the selling stockholders, are sold in the offering.

(b) Applicable percentage ownership is based on the sum of (i) 41,649,402 shares of common stock outstanding as of March 31, 2012, (ii) 112,346,479 shares of common stock initially issuable upon conversion or exercise of the outstanding Series A-1 Convertible Preferred Stock, Convertible Promissory Notes and warrants to purchase common stock issued in the May 2011 Private Placement, (iii) 1,152,762 shares of common stock issuable upon conversion of interest paid in kind by addition to the principal balance of Convertible Promissory Notes issued in the May 2011 Private Placement through March 31, 2012 and (iv) shares of our common stock subject to options, warrants, or other rights currently exercisable or exercisable within 60 days of March 31, 2012, provided that such shares are included for computing the share ownership and percentage of the person holding such options, warrants or other rights, but are not included in computing the percentage of any other person.

(1) Shares of Common Stock Being Offered in this Offering consists of 3,963,559 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 3,615,868 shares of common stock issuable on conversion of Convertible Promissory Notes and 7,579,427 shares of common stock issuable upon the exercise of warrants. Jeffrey R. Jay and David Kroin share voting control and investment power over the securities owned by the selling stockholder. Its address is c/o Great Point Partners, LLC, 165 Mason Street, 3rd Floor, Greenwich, CT 06830. See also notes 2-11.

(2) Shares of Common Stock Being Offered in this Offering consists of 976,770 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 891,087 shares of common stock issuable on conversion of Convertible Promissory Notes and 1,867,858 shares of common stock issuable upon the exercise of warrants. Jeffrey R.

Jay and David Kroin share voting control and investment power over the securities owned by the selling stockholder. Its address is c/o Great Point Partners, LLC, 165 Mason Street, 3rd Floor, Greenwich, CT 06830. See also notes 1 and 3-11.

(3) Shares of Common Stock Being Offered in this Offering consists of 2,442,410 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 2,228,166 shares of common stock issuable on conversion of Convertible Promissory Notes and 4,670,577 shares of common stock issuable upon the exercise of warrants. Jeffrey R. Jay and David Kroin share voting control and investment power over the securities owned by the selling stockholder. Its address is c/o Great Point Partners, LLC, 165 Mason Street, 3rd Floor, Greenwich, CT 06830. See also notes 1-2 and 4-11.

(4) Shares of Common Stock Being Offered in this Offering consists of 132,390 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 120,780 shares of common stock issuable on conversion of Convertible Promissory Notes and 253,171 shares of common stock issuable upon the exercise of warrants. Jeffrey R. Jay and David Kroin share voting control and investment power over the securities owned by the selling stockholder. Its address is c/o Great Point Partners, LLC, 165 Mason Street, 3rd Floor, Greenwich, CT 06830. See also notes 1-3 and 5-11.

(5) Shares of Common Stock Being Offered in this Offering consists of 66,200 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 60,394 shares of common stock issuable on conversion of Convertible Promissory Notes and 126,595 shares of common stock issuable upon the exercise of warrants. Jeffrey R. Jay and David Kroin share voting control and investment power over the securities owned by the selling stockholder. Mr. Morrison's address is c/o Great Point Partners, LLC, 165 Mason Street, 3rd Floor, Greenwich, CT 06830. See also notes 1-4 and 6-11.

(6) Shares of Common Stock Being Offered in this Offering consists of 2,403,850 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 2,192,982 shares of common stock issuable on conversion of Convertible Promissory Notes and 4,596,832 shares of common stock issuable upon the exercise of warrants. Jeffrey R. Jay and David Kroin share voting control and investment power over the securities owned by the selling stockholder. Its address is c/o Great Point Partners, LLC, 165 Mason Street, 3rd Floor, Greenwich, CT 06830. See also notes 1-5 and 7-11.

(7) Shares of Common Stock Being Offered in this Offering consists of 1,985,980 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 1,811,771 shares of common stock issuable on conversion of Convertible Promissory Notes and 3,797,752 shares of common stock issuable upon the exercise of warrants. Jeffrey R. Jay has voting control and investment power over the securities owned by the selling stockholder. Its address is c/o Great Point Partners, LLC, 165 Mason Street, 3rd Floor, Greenwich, CT 06830. See also notes 1-6 and 8-11.

(8) Shares of Common Stock Being Offered in this Offering consists of 192,310 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 175,438 shares of common stock issuable on conversion of Convertible Promissory Notes and 367,749 shares of common stock issuable upon the exercise of warrants. Jeffrey R. Jay has voting control and investment power over the securities owned by the selling stockholder. Dr. Jay's address is c/o Great Point Partners, LLC, 165 Mason Street, 3rd Floor, Greenwich, CT 06830. See also notes 1-7 and 9-11.

(9) Shares of Common Stock Being Offered in this Offering consists of 96,150 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 87,719 shares of common stock issuable on conversion of Convertible Promissory Notes and 183,869 shares of common stock issuable upon the exercise of warrants. Jeffrey R. Jay has voting control and investment power over the securities owned by the selling stockholder. Dr. Jay's address is c/o Great Point Partners, LLC, 165 Mason Street, 3rd Floor, Greenwich, CT 06830. See also notes 1-8 and 10-11.

(10) Shares of Common Stock Being Offered in this Offering consists of 96,150 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 87,719 shares of common stock issuable on conversion of Convertible Promissory Notes and 183,869 shares of common stock issuable upon the exercise of warrants. Jeffrey R. Jay has voting control and investment power over the securities owned by the selling stockholder. Dr. Jay's address is c/o Great Point Partners, LLC, 165 Mason Street, 3rd Floor, Greenwich, CT 06830. See also notes 1-9 and 11.

(11) Shares of Common Stock Being Offered in this Offering consists of 384,620 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 350,877 shares of common stock issuable on conversion of Convertible Promissory Notes and 735,497 shares of common stock issuable upon the exercise of warrants. Dr. Jay's address is c/o Great Point Partners, LLC, 165 Mason Street, 3rd Floor, Greenwich, CT 06830. See also notes 1-10.

(12) Shares of Common Stock Being Offered in this Offering consists of 240,380 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 219,298 shares of common stock issuable on conversion of Convertible Promissory Notes and 459,678 shares of common stock issuable upon the exercise of warrants. Paul Schimmel has voting control and investment power over the securities owned by the selling stockholder. Its address is 9822 la Jolla Farms Rd, La Jolla, CA 92037-1135.

(13) Shares of Common Stock Being Offered in this Offering consists of 3,024,519 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 2,759,210 shares of common stock issuable on conversion of Convertible Promissory Notes and 5,783,730 shares of common stock issuable upon the exercise of warrants. James E. Flynn has the power to vote or dispose of the securities held by the selling stockholder. Its address is c/o Deerfield Management Co., L.P., Series C, 780 Third Avenue, 37th Fl, New York, NY 10017. See also notes 14, 15 and 16.

(14) Shares of Common Stock Being Offered in this Offering consists of 3,465,865 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 3,161,842 shares of common stock issuable on conversion of Convertible Promissory Notes and 6,627,708 shares of common stock issuable upon the exercise of warrants. James E. Flynn has the power to vote or dispose of the securities held by the selling stockholder. Its address is c/o Deerfield Management Co., L.P., Series C, 780 Third Avenue, 37th Fl, New York, NY 10017. See also notes 13, 15 and 16.

(15) Shares of Common Stock Being Offered in this Offering consists of 2,531,250 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 2,309,210 shares of common stock issuable on conversion of Convertible Promissory Notes and 4,840,461 shares of common stock issuable upon the exercise of warrants. James E. Flynn has the power to vote or dispose of the securities held by the selling stockholder. Its address is c/o Deerfield Management Co., L.P., Series C, 780 Third Avenue, 37th Fl, New York, NY 10017. See also notes 13, 14 and 16.

(16) Shares of Common Stock Being Offered in this Offering consists of 3,959,134 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 3,611,842 shares of common stock issuable on conversion of Convertible Promissory Notes and 7,570,977 shares of common stock issuable upon the exercise of warrants. James E. Flynn has the power to vote or dispose of the securities held by the selling stockholder. Its address is c/o Deerfield Management Co., L.P., Series C, 780 Third Avenue, 37th Fl, New York, NY 10017. See also notes 13, 14 and 15.

(17) Shares of Common Stock Being Offered in this Offering consists of 2,403,846 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 2,192,982 shares of common stock issuable on conversion of Convertible Promissory Notes and 4,596,829 shares of common stock issuable upon the exercise of warrants. Dominique Sémon has voting control and investment power over the securities owned by the selling stockholder. Its address is 424 West 33rd Street, Suite 520, New York, NY 10001.

(18) Shares of Common Stock Being Offered in this Offering consists of 384,615 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 350,877 shares of common stock issuable on conversion of Convertible Promissory Notes and 735,493 shares of common stock issuable upon the exercise of warrants. Alnoor Shivji, our Chairman of the Board, has voting control and investment power over the securities owned by The Shivji Family Trust dated June 12, 2000. Shares of Common Stock Owned Before this Offering includes shares held by Mr. Shivji and his affiliates. Shares of Common Stock Underlying Convertible Securities Owned Before this Offering includes 1,819,902 shares of common stock not offered in this offering issuable upon the exercise of warrants and options held by Mr. Shivji and his affiliates exercisable within 60 days of March 31, 2012.

(19) Shares of Common Stock Being Offered in this Offering consists of 240,384 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 219,298 shares of common stock issuable on conversion of Convertible Promissory Notes and 459,683 shares of common stock issuable upon the exercise of warrants. Mr. Coradini is a member of our board of directors. Shares of Common Stock Underlying Convertible Securities Owned Before this Offering includes 225,673 shares of common stock not offered in this offering issuable upon the exercise of warrants and options held by Mr. Coradini and exercisable within 60 days of March 31, 2012.

(20) Shares of Common Stock Being Offered in this Offering consists of 96,153 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 87,719 shares of common stock issuable on conversion of Convertible Promissory Notes and 183,873 shares of common stock issuable upon the exercise of warrants. Mr. Kanter is a member of

our board of directors. Shares of Common Stock Underlying Convertible Securities Owned Before this Offering includes 116,250 shares of common stock not offered in this offering issuable upon the exercise of options held by Mr. Kanter and exercisable within 60 days of March 31, 2012. See also note 21.

(21) Shares of Common Stock Being Offered in this Offering consists of 48,076 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 43,859 shares of common stock issuable on conversion of Convertible Promissory Notes and 91,937 shares of common stock issuable upon the exercise of warrants. Mr. Kanter, a member of our board of directors, has voting control and investment power over, but disclaims beneficial ownership of, the securities owned by The Kanter Family Foundation. Shares of Common Stock Underlying Convertible Securities Owned Before this Offering includes 22,500 shares of common stock not offered in this offering issuable upon the exercise of warrants held by The Kanter Family Foundation exercisable within 60 days of March 31, 2012. See also note 20.

(22) Shares of Common Stock Being Offered in this Offering consists of 240,384 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 219,298 shares of common stock issuable on conversion of Convertible Promissory Notes and 459,683 shares of common stock issuable upon the exercise of warrants. Helen M. Carroll and Linda G. Williams share voting control and investment power over the securities owned by the selling stockholder. Its address is Goodman’s Bay Corporate Centre, Ground Floor, West Bay Street, P.O. Box N-3933, Nassau, Bahamas, Attention: Helen M. Carroll. Shares of Common Stock Underlying Convertible Securities Owned Before this Offering includes 188,462 shares of common stock not offered in this offering issuable upon the exercise of warrants held by CIBC Trust Company (Bahamas) Limited exercisable within 60 days of March 31, 2012.

DETERMINATION OF OFFERING PRICE

The selling stockholders will determine at what price they may sell the shares of common stock offered by this prospectus, and such sales may be made at prevailing market prices, or at privately negotiated prices.

PLAN OF DISTRIBUTION

The selling stockholders and any of their pledgees, donees, transferees, assignees and successors-in-interest may, from time to time, sell any or all of their shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at fixed or negotiated prices. The selling stockholders may use any one or more of the following methods when selling shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits investors;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- to cover short sales made after the date that this registration statement is declared effective by the SEC;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- through the distribution of common stock by any selling stockholder to its partners, members or stockholders;
- any other method permitted pursuant to applicable law; and
- a combination of any such methods of sale.

The selling stockholders may also sell shares under Rule 144 under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated. The compensation of any particular broker-dealer may be in excess of what is customary in the types of transactions involved.

The selling stockholders may from time to time pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell shares of common stock from time to time under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus.

Upon a selling stockholder's notification to us that any material arrangement has been entered into with a broker-dealer for the sale of such stockholder's common stock through a block trade, special offering, exchange distribution or secondary distribution or a purchase by a broker or dealer, a supplement to this prospectus will be filed, if required, pursuant to Rule 424(b) under the Securities Act disclosing (i) the name of each such selling stockholder and of the participating broker-dealer(s), (ii) the number of shares involved, (iii) the price at which such shares of common stock were sold, (iv) the commissions paid or discounts or concessions allowed to such broker-dealer(s), where applicable, (v) that such broker-dealer(s) did not conduct any investigation to verify the information set out or incorporated by reference in this prospectus, and (vi) other facts material to the transaction. In

addition, upon our being notified in writing by a selling stockholder that a donee or pledgee intends to sell more than 500 shares of common stock, a supplement to this prospectus will be filed if then required in accordance with applicable securities law.

The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the donees, assignees, transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus and may sell the shares of common stock from time to time under this prospectus after we have filed any necessary supplements to this prospectus under Rule 424(b), or other applicable provisions of the Securities Act, supplementing or amending the list of selling stockholders to include such donee, assignee, transferee, pledgee, or other successor-in-interest as a selling stockholder under this prospectus.

In the event that the selling stockholders are deemed to be "underwriters," any broker-dealers or agents that are involved in selling the shares will be deemed to be "underwriters" within the meaning of the Securities Act, in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Discounts, concessions, commissions and similar selling expenses, if any, that can be attributed to the sale of the shares of common stock will be paid by the selling stockholder and/or the purchasers. Each selling stockholder has represented and warranted to us that it acquired the securities subject to this registration statement in the ordinary course of such selling stockholder's business and, at the time of its purchase of such securities such selling stockholder had no agreements or understandings, directly or indirectly, with any person to distribute any such securities.

We have advised each selling stockholder that it may not use shares registered on this registration statement to cover short sales of common stock made prior to the date on which this registration statement shall have been declared effective by the SEC. If a selling stockholder uses this prospectus for any sale of the common stock, it will be subject to the prospectus delivery requirements of the Securities Act. The selling stockholders will be responsible to comply with the applicable provisions of the Securities Act and the Exchange Act, and the rules and regulations thereunder promulgated, including, without limitation, Regulation M, as applicable to such selling stockholders in connection with resales of their respective shares under this registration statement.

We have agreed with the selling stockholders to keep this registration statement effective until all of the shares covered by this registration statement have been sold, or may be sold without volume or manner-of-sale restrictions pursuant to Rule 144 promulgated under the Securities Act, without the requirement for us to be in compliance with the current public information requirement under Rule 144.

We are required to pay all fees and expenses incident to the registration of the shares, but we will not receive any proceeds from the sale of the common stock. We have agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

USE OF PROCEEDS

We will not receive proceeds from the sale of common stock under this prospectus. We will, however, receive approximately $34.8 million from the selling stockholders if they exercise their warrants in full, on a cash basis, which we will use for working capital and general corporate purposes. The warrant holders may exercise their warrants at any time until their expiration, as further described under "Description of Securities." Because the warrant holders may exercise the warrants in their own discretion, if at all, we cannot plan on specific uses of proceeds beyond application of proceeds to general corporate purposes. We have agreed to bear the expenses (other than any underwriting discounts or commissions or agent's commissions) in connection with the registration of the common stock being offered hereby by the selling stockholders.

MARKET PRICE OF AND DIVIDENDS ON COMMON STOCK AND RELATED MATTERS

Trading Information

Our common stock is currently quoted on the OTC Bulletin Board maintained by the NASD under the symbol WGBS.OB. As soon as practicable, and assuming we satisfy all necessary initial listing requirements, we intend to apply to have our common stock listed for trading on the American Stock Exchange or The NASDAQ Stock Market, although we cannot be certain that any of these applications will be approved or that we will ever be able to satisfy the qualitative or quantitative listing requirements for our common stock to be listed on an exchange.

The transfer agent for our common stock is Continental Stock Transfer and Trust Company at 17 Battery Place, New York, New York 10004.

The following table sets forth the high and low closing bid prices for our common stock for the fiscal quarters indicated as reported on the OTCBB. 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
2012		
First Quarter ended March 31, 2012	0.24	0.11
Second Quarter ended June 30, 2012 (through April 24, 2012)	0.15	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 April 24, 2012, the closing bid price of our common stock, as reported on the OTC Bulletin Board, was $0.14.

As of April 24, 2012, there were 126 holders of record of our common stock.

Trades in our common stock may be subject to Rule 15g-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

The following table sets forth information regarding our compensation plans under which equity securities are authorized for issuance to our employees, as of December 31, 2011:

Plan Category	Number of Securities to Be Issued Upon Exercise of Outstanding Options, Warrants and Rights (a)	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights (b)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a)) (c)
Equity compensation plans approved by security holders	4,306,900	$ 1.40	$ 10,305,071
Equity compensation plans not approved by security holders	—	—	—
Total	4,306,900	$ 1.40	$ 10,305,071

Additional information regarding our equity compensation plans is provided in Note 8 to our financial statements on pages F-19 to F-21 of this prospectus.

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 prospectus, including 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 prospectus. See "Risk Factors." 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.

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.

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 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 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 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.

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.

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 DNA[1] (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 sequencing[3]. 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 Gleevac, 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.

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.

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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.

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 RNA[4]. 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.

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[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 logs[5]. 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

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[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.

mRNA degradation. We believe cancer diagnosis, prognosis, and treatment are important potential clinical applications of microRNA profiling.

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 oligoneucleotide[6] 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.

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

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 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).

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 guidance[7] 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 acquired[8] sequence variants/mutations and hence identify genes critical in the development of human cancers.

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

8 Mutations rising 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.

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.

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 Biotechnology[9]). 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.

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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.

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 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.

Properties

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

Location	Square Feet	Primary Use	Lease Terms
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.

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.

DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Set forth below is certain information regarding our directors and executive officers:

Name	Age	Position
Alnoor Shivji	55	Chairman of the Board
Robert Coradini	52	Director
Scott Davidson	42	Director
Dr. R. Dean Hautamaki	49	Director
Makoto Kaneshiro	53	Director
Joel Kanter	55	Director
Joseph Pesce	63	Director
Dr. Timothy Triche	67	Director
Dr. Ivan Trifunovich	49	Chief Executive Officer, President and Director
John Harland	60	Interim Chief Financial Officer and Vice President of Finance

Our bylaws provide that our Board will consist of between one and fifteen members, with the number of directors determined from time to time by our Board. The number of directors is currently set at nine. Our directors hold office for one-year terms until the earlier of their death, resignation or removal or until their successors have been elected and qualified. Any vacancies occurring in the Board between annual meetings may be filled by the vote a majority of the remaining directors. Our officers are appointed by our board of directors and serve at the discretion of our board of directors.

There are no family relationships among our directors and executive officers. Mr. Davidson and Mr. Pesce are each Managing Directors of Great Point Partners, LLC, and have been designated to our Board pursuant to a purchase agreement and a subsequent letter agreement entered into between us and the investors in the May 2011 Private Placement.

None of our above-listed executive officers and directors has been convicted in any criminal proceeding during the past five years or has been a party to any judicial or administrative proceeding during the past five years that resulted in a judgment, decree or final order enjoining him or her from future violations of, or prohibiting activities subject to, federal or state securities laws or a finding of any violation of federal of state securities laws or commodities laws. Similarly, no bankruptcy petitions have been filed by or against any business or property of any of our directors or executive officers, nor has a bankruptcy petition been filed against a partnership or business association in which these persons were general partners or executive officers.

Alnoor Shivji, *Chairman of the Board.* Mr. Shivji is a co-founder of WaferGen and has been Chairman of the Board since October 2002. Mr. Shivji also served as our Chief Executive Officer and President from April 2003 until October 2011. Between December 2003 and July 2006, he was also the Investment Director at VPSA, Inc. in Paris, France, and between October 2001 and February 2002, he was the President and Chief Executive Officer of Redwave Networks, Inc. From April 2001 to August 2001, Mr. Shivji was President of Metro Switching Division of Ciena Corp. Between August 1998 and March 2001, he was the Founder, President and Chief Executive Officer of Cyras Systems. He co-founded Fiberlane Communications, Inc. and was President of Fiberlane Communications (Canada), Inc. from December 1996 to April 1998. Mr. Shivji also co-founded Osiware, an enterprise software company sold to Infonet Services Corporation, which was later bought by BT Group plc. Currently, he is a General Partner with Global Asset Capital, a venture capital firm with which he has been associated since March 2002, and has a long history advising and investing in Silicon Valley startups. Mr. Shivji has a BS degree from University of British Columbia. We believe Mr. Shivji's qualifications to serve on our Board include that, as our co-founder, Mr. Shivji is uniquely familiar with the business, structure and history of the Company, and he also brings to the Board perspective gained as an investor and in his management roles at various companies.

Robert Coradini*, Director.* Mr. Coradini has served as our director since October 2009. He has over twenty years of experience in the healthcare industry and has focused on turnarounds, mergers & acquisitions and building global businesses. Mr. Coradini has served as a chief executive and company president for various subsidiaries of the Johnson & Johnson Company since 1996, including service as President, New Ventures of Johnson & Johnson Consumer Group of Companies from 2005 until May 2009, service as World Wide President of Cardiovations / Ethicon from 2003 until 2005, service as President of LifeScan from 2000 to 2003 and as President of Cordis Endovascular from 1997 through 1999. Mr. Coradini was also head of Business Development for Johnson & Johnson Medical Devices & Diagnostic group from 1999 through 2000. Prior to joining Johnson & Johnson, Mr. Coradini was business manager for GE Medical Systems, Inc. Mr. Coradini currently serves on the board of directors of Mela Sciences, a publically traded medical device company and does advisory work for a number of private healthcare companies.

Mr. Coradini has his MBA with a concentration in Finance, Marketing & International Business from Columbia University Graduate School of Business and a B.A. in Biology & Economics with High Distinctions from the University of Rochester. We believe Mr. Coradini's qualifications to serve on our Board include the perspective and experience he has gained in management of a number of companies in the healthcare industry.

***Scott Davidson**, Director.* Mr. Davidson has served as our director since January 2012. Mr. Davidson has served as a Managing Director of Great Point Partners, LLC since April 2005, where he has led the firm's investment efforts in medical device, diagnostics and life science tools companies. Prior to that, he provided strategic consulting services to medical device companies from March 2004 to March 2005. Previously, Mr. Davidson served as Managing Director and Senior Research Analyst at Piper Jaffray, Associate Director at Bear Stearns, and as a Research Associate at Robertson, Stephens & Company. In those three prior roles, Mr. Davidson analyzed the securities of medical device companies and made investment recommendations to institutional clients. Earlier in his career, Mr. Davidson worked as an Investment Analyst for Canaan Partners, a venture capital firm. Mr. Davidson holds an A.B. in Economics from Harvard College and an M.B.A. from the Stanford Graduate School of Business. We believe Mr. Davidson's qualifications to serve on our Board include his experience in investment management and in and analysis of companies in the healthcare and medical device industry.

***Dr. R. Dean Hautamaki**, Director.* Dr. Hautamaki has served as our director since May 2007. Dr. Hautamaki is a practicing physician and since January 2005 has been the Assistant Clinical Professor of Medicine at the Florida State University College of Medicine in Tallahassee, Florida. From September 2003 to December 2005, Dr. Hautamaki was the Chairman of the Department of Medicine at Sarasota Memorial Hospital in Sarasota, Florida. From September 1997 through December 2005, he was a partner at Lung Associates of Sarasota in Sarasota, Florida. Dr. Hautamaki has authored over 12 papers and presented in several conferences. We believe Dr. Hautamaki's qualifications to serve on our Board include his expertise in the biomedical technology industry and his experience as a practicing physician.

***Makoto Kaneshiro**, Director.* Mr. Kaneshiro has served as our director since March 2005. Mr. Kaneshiro is a founding member of Genetic Devices, Co., Ltd. in Japan and prior to that was the Executive Director of Overseas Investment for CSK Venture Capital Co., Ltd., where he had been since 2001. Previously, Mr. Kaneshiro was Executive Vice President of Sega.com and Sega of America. Before Sega, he was a member of the business development and corporate planning team of Sony Corporation of America. From 2003 to 2004, Mr. Kaneshiro was a member of the Board of Directors of Sega Corporation which was a publicly traded company in Japan. He holds an MBA from Yale University. We believe Mr. Kaneshiro's qualifications to serve on our Board include his experience in investment management, his experience as a board member of other public companies, and his experience in business development roles at a number of other companies.

***Joel Kanter**, Director.* Mr. Kanter has served as our director since June 2007. He has been in the financial services industry for over three decades and has focused on providing equity and bridge financing to small and mid-size companies. He has served as President of Windy City, Inc., a privately held investment firm, and as the Chief Executive Officer and President of Walnut Financial Services, Inc., a publicly traded company. Mr. Kanter currently serves on the boards of directors of several public companies, including Magna-Lab, Inc., Medgenics, Inc., and Vyteris, Inc., as well as a number of private concerns. Mr. Kanter has a B.A. in Political Science and a B.A. in Psychology from Tulane University. We believe Mr. Kanter's qualifications to serve on our Board include his extensive experience in investment management and his experience serving as an executive and board member of a number of public and private biomedical and other technology companies.

***Joseph Pesce**, Director.* Mr. Pesce has served as our director since January 2012. Mr. Pesce has served as the Managing Director and Operating Partner of Great Point Partners, LLC since January 2011. In addition, he has served as Managing Director and Chief Risk Officer of Thomas H. Lee Partners, L.P. since June 2010, prior to which he had served as its Chief of Operations from May 2006 and as its Chief Financial Officer from July 2001, when he joined the firm. Prior to that, Mr. Pesce spent over 25 years in senior financial positions in high technology, healthcare and consulting services companies. Mr. Pesce is a Certified Public Accountant, and he holds an A.B. in Mathematics from Boston College and an M.B.A. from Wharton School of the University of Pennsylvania. We believe Mr. Pesce's qualifications to serve on our Board include the perspective he has gained in companies in the healthcare and technology industries and his expertise in financial accounting.

***Dr. Timothy Triche**, Director.* Dr. Triche has served as our director since February 2011. Dr. Triche also serves on our Scientific Advisory Board, which he joined in June 2010. Dr. Triche serves as director of the Center of Personalized Medicine at the University of Southern California. From July 1988 to July 2010, Dr. Triche was the Chair of Pathology at the Children's Hospital Los Angeles, California. Dr. Triche serves as Chairman of the Board of Directors of Genome DX and Novelix, and serves on the Board of Directors of LTC and NanoValent. Dr. Triche has an A.B. degree in physics and biology from Cornell University and an M.D. and Ph.D. in medicine from Tulane University Medical Center. We believe Dr. Triche's qualifications to serve on our Board

include his expertise in the biomedical industry and his experience in serving as a board member and an executive officer for a variety of other biomedical technology companies.

***Ivan Trifunovich**, Chief Executive Officer, President and Director.* Dr. Trifunovich has served as our Chief Executive Officer, President and director since March 2012. Dr. Trifunovich also serves as President, Chief Executive Officer and Chairman of the Board of Helicos BioSciences Corporation, where he has been employed since October 2010. Since August 2008, Dr. Trifunovich has served as a strategic consultant to global companies in the life sciences industry. Previously, Dr. Trifunovich served as the Senior Vice President of Third Wave Technologies, Inc., a molecular diagnostics company, from December 2001 through August 2008. Prior to joining Third Wave Technologies, Inc., Dr. Trifunovich held successive positions as Vice President of e-Business and Vice President of Research Strategy and Operations at Pharmacia Corp. Prior to joining Pharmacia, Dr. Trifunovich was a Director of New Product Marketing at Johnson & Johnson, Inc. He began his career at Bristol-Myers Squibb, Inc. as a bench scientist, where he held several positions of increasing responsibility. Dr. Trifunovich received his Ph.D. in organic chemistry at UCLA and an M.B.A. at the University of Pennsylvania's Wharton School of Business. We believe Dr. Trifunovich's qualifications to serve on the board of directors include his extensive executive knowledge and experience in scientific and business management in the life sciences and molecular diagnostics industries.

***John Harland**, Interim Chief Financial Officer and Vice President of Finance.* Mr. Harland has served as our Interim Chief Financial Officer and Vice President of Finance since March 2012, and joined us as our Director of Finance and Controller in June 2011. Mr. Harland has 29 years of experience in senior financial roles at biotechnology, medical device and other high-technology companies. Prior to joining the Company, from April 2010 to June 2011, he served as a financial consultant to emerging growth companies. From October 2008 to April 2010, he served as vice president, finance and administration for Trinity Biosystems, Inc., and from June 2006 to October 2008, he served as chief financial officer for Light Dimensions, Inc., a maker of LED-based skincare devices. Mr. Harland has served as chief financial officer for four companies that completed initial public offerings during his term of service, including Alliance Fiber Optic Products, Inc., Neurobiological Technologies, Inc., Cardiovascular Imaging Systems, Inc. and Circadian, Inc. Mr. Harland began his career as an auditor at Arthur Young & Company and holds an M.A. in Business Studies and Natural Sciences from Cambridge University and an M.B.A. in Taxation and Finance from Golden Gate University.

Committees

We have six standing committees of the board of directors: the Audit Committee; the Nominating and Corporate Governance Committee; the Compensation Committee; the Finance Committee; the Clinical Development Committee; and the Applications and Diagnostic Committee.

Audit Committee

Our Audit Committee is authorized by the Board of Directors to, without limitation: approve the firm to be engaged as our independent registered public accounting firm for the next fiscal year; review with our independent registered public accounting firm the scope and results of their audit and any related management letter; consult with our independent registered public accounting firm and our management with regard to our accounting methods and adequacy of our internal controls over financial reporting; approve the professional services rendered by our independent registered public accounting firm; review the independence, management consulting services and fees of our independent registered public accounting firm; inquire about significant risks or exposures and methods to minimize such risk; ensure effective use of audit resources; and prepare and supervise the SEC reporting requirements. Our Board of Directors has adopted an Audit Committee Charter, a copy of which is on our website, www.wafergen.com. Our Audit Committee currently consists of Dr. Hautamaki, Mr. Kanter (Chairman) and Mr. Pesce. In addition, our Board of Directors has concluded that Mr. Kanter meets the definition of "audit committee financial expert" as such term is defined by SEC rules.

Nominating and Corporate Governance Committee

The Nominating and Corporate Governance Committee of the Board of Directors is appointed by the Board (i) to oversee the selection of new directors, (ii) to oversee the function of the Board in its committees and (iii) to evaluate the Board's performance as well as the relationship between the Board and our management. Our Board of Directors has adopted a Nominating and Corporate Governance Committee Charter, a copy of which is available on our website. The Nominating and Corporate Governance Committee considers several factors in evaluating candidates for nomination to the Board of Directors, including the candidate's knowledge of the Company and its business, the candidate's business experience and credentials, and whether the candidate would represent the interests of all our stockholders as opposed to a specific group of stockholders. Our Board of

Directors has adopted a Nominating and Corporate Governance Committee Charter, a copy of which is on our website, www.wafergen.com. The Nominating and Corporate Governance Committee currently consists of Mr. Coradini (Chairman), Dr. Hautamaki, Mr. Kaneshiro and Mr. Kanter.

Compensation Committee

Our Compensation Committee assists our Board of Directors in discharging its responsibilities relating to compensation of our executive officers and directors. Our Compensation Committee, among other things, (i) reviews and approves our compensation programs and arrangements, (ii) determines the objectives of our executive officer compensation programs, (iii) ensures appropriate corporate performance measures and goals regarding executive officer compensation are set and determine the extent to which they are achieved and any related compensation earned and (iv) monitors the administration of our incentive-compensation plans and equity-based plans as in effect and as adopted from time to time by the Board. Our Board of Directors has adopted a Compensation Committee Charter, a copy of which is available on our website, www.wafergen.com. The Compensation Committee currently consists of Mr. Coradini, Mr. Kaneshiro and Mr. Kanter (Chairman).

Finance Committee

Our Finance Committee was formed to oversee areas of finance, including budget development and execution, tracking and evaluating performance, closely monitoring cash, evaluating potential strategic transactions and conducting other financing activities. Our Board of Directors has adopted a Finance Committee Charter, a copy of which is available on our website, www.wafergen.com. The Finance Committee currently consists of Mr. Coradini, Mr. Davidson, Mr. Kanter and Mr. Pesce.

Clinical Development Committee

Our Clinical Development Committee provides our Board of Directors with guidance on areas of clinical drug development and diagnostics that may be applicable to our SmartChip System. The Clinical Development Committee currently consists of Dr. Hautamaki (Chairman).

Applications and Diagnostic Committee

Our Applications and Diagnostic Committee is charged with identifying and negotiating high value applications for the Company's diagnostics platform. The Applications and Diagnostic Committee currently consists of Mr. Davidson, Dr. Hautamaki, Mr. Shivji and Dr. Triche (Chairman).

Nomination of Directors

There have been no material changes to the procedures by which security holders may recommend nominees to our board of directors implemented since the filing of our Proxy Statement for our 2011 Annual Meeting of Stockholders.

Section 16(a) Beneficial Ownership Reporting Compliance

Based solely upon a review of Forms 3 and 4 and amendments thereto furnished to us under Rule 16a-3(e) under the Exchange Act during its most recent fiscal year and Forms 5 and amendments thereto furnished to us with respect to our most recent fiscal year, no person who, at any time during the fiscal year, was a director, officer, beneficial owner of more than ten percent of our common stock, or any other person known to us to be subject to section 16 of the Exchange Act with respect to us, failed to file on a timely basis reports required by section 16(a) of the Exchange Act during the most recent fiscal year, except as described below:

Name	Number of Late Reports	Number of Transactions That Were Not Reported on a Timely Basis	Failure to File a Required Form
Robert Coradini	1	2	0
Dr. Robert J. Hariri	2	3	0
Dr. R. Dean Hautamaki	1	2	0
Makoto Kaneshiro	2	4	0
Joel S. Kanter	1	2	0
Nadine C. Smith	1	2	0

Code of Ethics

Our board of directors has adopted a Code of Business Conduct and Ethics that applies to, among other persons, our Company's principal executive officer and principal financial officer, as well as persons performing similar functions. As adopted, our Code of Business Conduct and Ethics set forth written standards that are designed to deter wrongdoing and promote:

(1) honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;

(2) full, fair, accurate, timely, and understandable disclosure in report and document that we file with, or submit to, the Security and Exchange Commission and in other public communications made by us;

(3) compliance with applicable government laws, rules and regulations;

(4) the prompt internal reporting of violations of Code of Business Conduct and Ethics to an appropriate person or persons identified in the Code of Business Conduct and Ethics; and

(5) accountability for adherence to the Code of Business Conduct and Ethics.

Our Code of Business Conduct and Ethics requires, among other things, that all of our personnel shall be accorded full access to our Chief Compliance Officer with respect to any matter which may arise relating to the Code of Business Conduct and Ethics. Further, all of our personnel are to be accorded full access to our board of directors if any such matter involves an alleged breach of the Code of Business Conduct and Ethics by our president, secretary, or chief financial officer.

In addition, our Code of Business Conduct and Ethics emphasizes that all employees, and particularly managers and/or supervisors, have a responsibility for maintaining financial integrity within our Company, consistent with generally accepted accounting principles and federal, provincial and state security laws. Any employee who becomes aware of any incident involving financial or accounting manipulation or other irregularities, whether by witnessing the incident or being told of it, must report it to his or her immediate supervisor or to our president, secretary, or chief financial officer. If the incident involves an alleged breach of the Code of Business Conduct and Ethics by the president, secretary, or chief financial officer, the incident must be reported to the Audit Committee. Any failure to report such inappropriate or irregular conduct of another is to be treated as a severe disciplinary matter. It is against our policy to retaliate against any individual who reports in good faith the violation or potential violation of our Code of Business Conduct and Ethics by another.

Our Code of Business Conduct and Ethics is available on our website, www.wafergen.com.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The following table sets forth certain information regarding the beneficial ownership of our common stock by (i) each person who, to our knowledge, owns more than 5% of our common stock, (ii) each of our directors and executive officers, and (iii) all of our executive officers and directors as a group. Unless otherwise indicated in the footnotes to the following table, each person named in the table has sole voting and investment power and that person's address is: c/o WaferGen Bio-systems, Inc., 7400 Paseo Padre Parkway, Fremont, CA 94555. Shares of our common stock subject to options, warrants, or other rights currently exercisable or exercisable within 60 days of March 31, 2012, are deemed to be beneficially owned and outstanding for computing the share ownership and percentage of the person holding such options, warrants or other rights, but are not deemed outstanding for computing the percentage of any other person.

Name of Beneficial Owner	Number of Shares Beneficially Owned	Percentage Beneficially Owned (1)
5% Holders:		
The Shivji Family Trust dated June 12, 2000	4,837,427 (2)	11.03 %
Entities affiliated with Deerfield Management Co., L.P. Series C	4,619,999 (3)	9.99 %
Entities affiliated with Great Point Partners, LLC	4,619,999 (4)	9.99 %
Merlin Nexus III, LP	4,619,999 (5)	9.99 %
William L. Collins	4,340,727 (6)	9.80 %
Mark Tompkins	2,481,083 (7)	5.88 %
Directors and Executive Officers:		
Alnoor Shivji	8,614,060 (8)	19.16 %
Robert Coradini	1,463,862 (9)	3.42 %
Joel Kanter	796,027 (10)	1.88 %
Dr. R. Dean Hautamaki	728,193 (11)	1.73 %
Makoto Kaneshiro	141,250 (12)	*
Dr. Timothy Triche	134,250 (13)	*
Scott Davidson	— (14)	—
Joseph Pesce	— (14)	—
Ivan Trifunovich	— (15)	—
John Harland	— (16)	—
Directors and Executive Officers as a Group (10 persons)	11,877,642	24.98 %

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* Less than 1%

(1) Based on 41,649,402 shares of our common stock issued and outstanding as of March 31, 2012.

(2) Includes 384,615 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, 365,970 shares of common stock issuable on conversion of Convertible Promissory Notes and 1,473,290 shares of common stock issuable upon the exercise of currently exercisable warrants. Alnoor Shivji and his wife, Mariam Shivji, are the co-trustees of The Shivji Family Trust dated June 12, 2000 ("The Shivji Family Trust"). Its address is 692 Hillcrest Terrace, Fremont, CA 94539. See also footnote (8) in this section and "Selling Stockholders" above.

(3) Consists of 4,619,999 shares of common stock issuable upon conversion of Series A-1 Convertible Preferred Stock collectively owned by each of Deerfield Private Design Fund II, L.P., Deerfield Private Design International II, L.P., Deerfield Special Situations Fund, L.P. and Deerfield Special Situations Fund International, Limited (collectively, the "Deerfield Owners"). Does not include (i) 8,360,769 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, (ii) 12,351,508 shares of common stock issuable on conversion of Series A-2 Convertible Preferred Stock on conversion of Convertible Promissory Notes, and (iii) 24,822,876 shares of common stock issuable upon the exercise of warrants collectively owned by the Deerfield Owners. The provisions of such preferred stock and warrants restrict the conversion and exercise, respectively, of such preferred stock and warrants to the extent that, after giving effect to such conversion or exercise, the holder of the preferred stock and warrants and its affiliates and any other person or entities with which such holder would constitute a group would beneficially own in excess of 9.985% and 9.98%, respectively, of the number of shares of Common Stock of the Issuer outstanding immediately after giving effect to such conversion or exercise, respectively (the "Ownership Cap"). Therefore, the reporting persons could be deemed to

beneficially own such number of shares underlying such preferred stock and warrants as would result in total beneficial ownership by such reporting persons up to the Ownership Cap of 9.985%. James E. Flynn has the power to vote or dispose of the securities held by each of the Deerfield Owners, and his address is c/o Deerfield Management Co., L.P. Series C, 780 Third Avenue, 37th Floor, New York, NY 10017. See also "Selling Stockholders" above.

(4) Consists of 4,619,999 shares of common stock issuable upon conversion of Series A-1 Convertible Preferred Stock collectively owned by each of Biomedical Value Fund, LP ("BVF"), Biomedical Offshore Value Fund, Limited ("BOVF"), Biomedical Institutional Value Fund, LP ("BIVF"), Lyrical Multi-Manager Fund, LP ("Lyrical"), Class D Series of GEF-PS, LP ("GEF-PS"), David J. Morrison ("Morrison"), WS Investments III, LLC ("WS"), Thomas C. Jay QPERT ("QPERT"), Carolyn Jay Trust ("Carolyn Trust"), Jeffrey Jay Jr. Trust ("Jay Trust") and Jeffrey and Mary Ellen Jay ("Jay", and together with QPERT, Carolyn Trust and Jay Trust, the "Jay Owners"). Does not include (i) 8,120,390 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, (ii) 12,122,773 shares of common stock issuable on conversion of Series A-2 Convertible Preferred Stock on conversion of Convertible Promissory Notes, and (iii) 24,363,196 shares of common stock issuable upon the exercise of warrants collectively owned by each of BVF, BOVF, BIVF, Lyrical, GEF-PS, Morrison, WS and the Jay Owners, the conversion or exercise of which would result in total beneficial ownership by such reporting persons exceeding the Ownership Cap of 9.985%. Great Point Partners, LLC is the investment manager with respect to the shares beneficially owned by each of BVF, BOVF, BIVF, Lyrical, GEF-PS, Morrison, and WS. Jeffrey R. Jay has the sole voting and sole dispositive power with respect to the shares beneficially owned by the Jay Owners. All of these funds are administered by Great Point Partners, LLC, whose address is 165 Mason Street, 3rd Floor, Greenwich, CT 06830. See also footnote (14) in this section and "Selling Stockholders" above.

(5) Consists of (i) 2,403,846 shares of common stock issuable upon conversion of Series A-1 Convertible Preferred Stock, and (ii) 2,216,153 shares of common stock issuable on conversion of Series A-2 Convertible Preferred Stock on conversion of Convertible Promissory Notes. Does not include (i) 71,163 shares of common stock issuable on conversion of Series A-2 Convertible Preferred Stock on conversion of Convertible Promissory Notes, and (ii) 4,596,829 shares of common stock issuable upon the exercise of warrants, the exercise of which would result in total beneficial ownership by such reporting person exceeding the Ownership Cap of 9.985%. The address of Merlin Nexus III, LP is 424 West 33rd Street, Suite 520, New York, NY 10001. See also "Selling Stockholders" above.

(6) Includes 1,600,000 shares held by William L. Collins 2009 GRAT, 7,736 shares held by affiliates of Brencourt Advisors, LLC, 1,230,770 shares of common stock issuable upon the exercise of currently exercisable warrants held by William L. Collins 2009 GRAT and 1,427,339 shares of common stock issuable upon the exercise of currently exercisable warrants held by affiliates of Brencourt Advisors, LLC. William L. Collins has voting control and investment power over, but disclaims beneficial ownership of, the securities managed owned by William L. Collins 2009 GRAT. William L. Collins is the CEO and Managing Member of Brencourt Advisors, LLC, but lacks sole voting control and investment power over and disclaims beneficial ownership of the securities managed by Brencourt Advisors, LLC. Brencourt Advisors, LLC's and William L. Collins's address is 600 Lexington Avenue, 8th Floor, New York, NY 10022.

(7) Share ownership based on beneficial owner's Schedule 13G filed on May 9, 2011. Includes 517,457 shares of common stock issuable upon the exercise of currently exercisable warrants. His address is c/o Gottbetter & Partners, 488 Madison Ave, 12th Floor, New York, NY 10022.

(8) Consists of (i) 2,549,529 shares of common stock, (ii) 659,786 shares of common stock issuable upon the exercise of currently exercisable warrants, (iii) 1,250 shares of restricted stock that will vest within 60 days, (iv) 346,666 shares of common stock issuable upon the exercise of options that are exercisable within 60 days, (v) 2,613,552 shares of common stock held by The Shivji Family Trust, (vi) 384,615 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock held by The Shivji Family Trust, (vii) 365,970 shares of common stock issuable on conversion of Series A-2 Convertible Preferred Stock on conversion of Convertible Promissory Notes held by The Shivji Family Trust, (viii) 1,473,290 shares of common stock issuable upon the exercise of currently exercisable warrants held by The Shivji Family Trust, (ix) 48,333 shares of common stock held by each of the Shivji Children's Trust fbo Zahra Shivji, the Shivji Children's Trust fbo Suraya Shivji and the Jameel Shivji Irrevocable Trust (the "Shivji Children's Trusts"), and (x) 24,801 shares of common stock issuable upon the exercise of currently exercisable warrants held by each of the three Shivji Children's Trusts. Mr. Shivji and his wife, Mariam Shivji, are the co-trustees of The Shivji Family Trust and each of the three Shivji Children's Trusts (together, the "Shivji Trusts"). Mr. Shivji disclaims beneficial ownership of the securities held by each of the Shivji Trusts, except to the extent he has a pecuniary interest therein. Excludes 3,750 shares of restricted stock that will not vest within 60 days and options to purchase 15,000 shares of common stock that are not exercisable within 60 days. See also footnote (2) in this section and "Selling Stockholders" above.

(9) Consists of (i) 309,391 shares of common stock, (ii) 240,384 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, (iii) 228,731 shares of common stock issuable on conversion of Series A-2 Convertible Preferred Stock on conversion of Convertible Promissory Notes, (iv) 599,106 shares of common stock issuable upon the exercise of currently exercisable warrants, (v) 1,250 shares of restricted stock that will vest within 60 days, and (vi) 85,000 shares of common stock issuable upon the exercise of options that are exercisable within 60 days. Excludes 3,750 shares of restricted stock that will not vest within 60 days and options to purchase 15,000 shares of common stock that are not exercisable within 60 days. See also "Selling Stockholders" above.

(10) Consists of (i) 25,000 shares of common stock, (ii) 96,153 shares of common stock issuable on conversion of Series A-1 Convertible Preferred Stock, (iii) 91,492 shares of common stock issuable on conversion of Series A-2 Convertible Preferred Stock on conversion of Convertible Promissory Notes, (iv) 183,873 shares of common stock issuable upon the exercise of currently exercisable warrants, (v) 1,250 shares of restricted stock that will vest within 60 days, (vi) 115,000 shares of common stock issuable upon the exercise of options that are exercisable within 60 days, (vii) 75,000 shares of common stock held by the Kanter Family Foundation, (viii) 48,076 shares of common stock issuable on conversion of Series A-1 Preferred Stock held by the Kanter Family Foundation, (ix) 45,746 shares of common stock issuable on conversion of Series A-2 Convertible Preferred Stock on conversion of Convertible Promissory Notes held by the Kanter Family Foundation, and (x) 114,437 shares of common stock issuable upon exercise of currently exercisable warrants held by the Kanter Family Foundation. Mr. Kanter has voting control and investment power over, but disclaims beneficial ownership of, the securities owned by the Kanter Family Foundation. Excludes 3,750 shares of restricted stock that will not vest within 60 days and options to purchase 15,000 shares of common stock that are not exercisable within 60 days. See also "Selling Stockholders" above.

(11) Consists of (i) 8,750 shares of common stock, (ii) 1,250 shares of restricted stock that will vest within 60 days, (iii) 395,000 shares of common stock issuable upon the exercise of options that are exercisable within 60 days, (iv) 226,883 shares of common stock held by Cojack Investment Opportunities, LLC ("Cojack"), and (v) 96,310 shares of common stock issuable upon the exercise of currently exercisable warrants held by Cojack. Excludes 3,750 shares of restricted stock that will not vest within 60 days and options to purchase 15,000 shares of common stock that are not exercisable within 60 days.

(12) Consists of (i) 25,000 shares of common stock, (ii) 1,250 shares of restricted stock that will vest within 60 days, and (iii) 115,000 shares of common stock issuable upon the exercise of options that are exercisable within 60 days. Excludes 3,750 shares of restricted stock that will not vest within 60 days and options to purchase 15,000 shares of common stock that are not exercisable within 60 days.

(13) Consists of (i) 5,000 shares of common stock, (ii) 1,250 shares of restricted stock that will vest within 60 days, and (iii) 128,000 shares of common stock issuable upon the exercise of options that are exercisable within 60 days. Excludes 3,750 shares of restricted stock that will not vest within 60 days and options to purchase 40,000 shares of common stock that are not exercisable within 60 days.

(14) Scott Davidson and Joseph Pesce do not beneficially own any shares of WaferGen Bio-systems, Inc. Both are managing directors of Great Point Partners, LLC, whose interests are recorded in footnote (4) in this section and "Selling Stockholders" above.

(15) Excludes options to purchase 3,000,000 shares of common stock that are not exercisable within 60 days.

(16) Excludes options to purchase 70,000 shares of common stock that are not exercisable within 60 days.

EXECUTIVE COMPENSATION

The following table summarizes all compensation recorded by us in each of fiscal year 2011 and 2010 for our principal executive officer and our two most highly compensated executive officers other than our principal executive officer, each of whom was serving as an executive officer at the end of fiscal year 2011. Such officers are referred to herein as our "Named Executive Officers."

(a) Name and Principal Position	(b) Fiscal Year	(c) Salary ($)	(d) Bonus ($)	(e) Stock Awards[4] ($)	(f) Option Awards[4] ($)	(i) All Other Compensation ($)	(j) Total ($)
Alnoor Shivji	2011	$ 193,900 (1)	$ 118,125	$ 39,375	$ —	$ 86,964 (1)	$ 438,364
Chairman and former President and Chief Executive Officer	2010	$ 223,125 (1)	$ —	$ —	$ —	$ —	$ 223,125
Mona Chadha	2011	$ 230,846 (2)	$ 149,375	$ 28,125	$ —	$ —	$ 408,346
Former Office of the President, Chief Operating Officer, Executive Vice President of Marketing and Business Development and Secretary	2010	$ 225,000 (2)	$ —	$ —	$ —	$ —	$ 225,000
Donald Huffman	2011	$ 225,000 (3)	$ 49,215	$ 7,071	$ —	$ —	$ 281,286
Former Office of the President and Chief Financial Officer	2010	64,038 (3)	—	$ —	$ 119,356	$ —	$ 183,394

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(1) Annual salary of $262,500 commenced on May 31, 2008, one year after the date of executive officer's employment agreement with the Company. On November 30, 2008 the Company adjusted the salary to $223,125 until the Company (a) raised $5 million in gross proceeds from the sale of its securities in one or more financings on or prior to March 30, 2009, excluding any gross proceeds received in connection with any financings completed by its Malaysian subsidiary, WGBM; or (b) raised after March 30, 2009 funds sufficient to finance the Company's operations at its then-current burn rate for an additional nine months after the closing of such financing, as reasonably determined by the compensation committee of the board of directors of the Company. Effective May 27, 2011, the latter condition was met and the annual salary reverted to $262,500. In connection with former executive officer's separation agreement effective October 18, 2011, the Company paid such former executive officer $52,699 in severance payments and $25,240 for accrued vacation in 2011, and will pay such former executive officer $209,801 in severance payments in 2012. Following termination as an executive officer, sums of $3,057 and $5,968 were earned in director's fees and consultancy fees, respectively.

(2) Such officer became a Section 16B officer on March 20, 2009, and an annual salary of $225,000 commenced on that date pursuant to such executive officer's employment agreement with us. The annual salary was increased to $235,000 effective June 1, 2011.

(3) Such officer became a Section 16B officer when his employment commenced on September 13, 2010, and an annual salary of $225,000 commenced on that date pursuant to such executive officer's employment agreement with us.

(4) Amounts in this column reflect the aggregate grant date fair value of stock awards granted in the fiscal year computed in accordance with FASB ASC Topic 718 (rather than the dollar amount recognized for financial statement purposes for the fiscal year), excluding the impact of estimated forfeitures related to service-based vesting conditions, as previously required. For more information, see Note 2, "Summary of Significant Accounting Policies—Stock-Based Compensation" on page F-11 and Note 8, "Stock Awards" on pages F-19 to F-21.

Outstanding Equity Awards at Fiscal Year-End 2011

Name	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price ($)	Option Expiration Date
Alnoor Shivji	166,666 (1)	— (1)	$ 1.50	4/18/2013 (8)
	75,000 (2)	— (2)	$ 1.95	4/18/2013 (8)
	75,000 (3)	— (3)	$ 1.35	4/18/2013 (8)
	25,000 (4)	— (4)	$ 1.00	4/18/2013 (8)
Mona Chadha	70,189 (5)	—	$ 0.15	7/1/2016
	22,917 (2)	2,083 (2)	$ 1.95	4/17/2018
	40,625 (3)	9,375 (3)	$ 1.35	9/30/2015
	7,917 (4)	2,083 (4)	$ 1.00	10/24/2015
	171,875 (6)	78,125 (6)	$ 1.10	3/20/2016
Donald Huffman	62,500 (7)	137,500 (7)	$ 1.56	9/13/2017

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(1) Option to purchase shares of our common stock at an exercise price of $1.50 per share granted on May 31, 2007, which option vests in equal monthly installments over four years and expires 10 years after the date of grant.

(2) Option to purchase shares of our common stock at an exercise price of $1.95 per share granted on April 17, 2008, which option vests with respect to the first 25% of the shares when the optionee completes 12 months of continuous service after the vesting start date, and with respect to an additional 1/48th of the shares when the optionee completes each full month of continuous service thereafter, and expires 10 years after the date of grant.

(3) Option to purchase shares of our common stock at an exercise price of $1.35 per share granted on September 30, 2008, which option vests with respect to the first 25% of the shares when the optionee completes 12 months of continuous services after the vesting start date, and with respect to an additional 1/48th of the shares when optionee completes each full month of continuous service thereafter, and expires 7 years after the date of grant.

(4) Option to purchase shares of our common stock at an exercise price of $1.00 per share granted on October 24, 2008, which option vests with respect to the first 25% of the shares when the optionee completes 12 months of continuous service after the vesting start date, and with respect to an additional 1/48th of the shares when optionee completes each full month of continuous service thereafter, and expires 7 years after the date of grant.

(5) Option to purchase shares of our common stock at an exercise price of $0.15 per share granted on July 1, 2006, which option vests with respect to the first 25% of the shares when the optionee completes 12 months of continuous service after the vesting start date, and with respect to an additional 1/48th of the shares when the optionee completes each full month of continuous service thereafter, and expires 10 years after the date of grant.

(6) Option to purchase our common stock at an exercise price of $1.10 per share granted on March 20, 2009, which option vests with respect to the first 25% of the shares when the optionee completes 12 months of continuous service after the vesting start date, and with respect to an additional 1/48th of the shares when optionee completes each full month of continuous service thereafter, and expires 7 years after the date of grant.

(7) Option to purchase shares of our common stock at an exercise price of $1.56 per share granted on September 13, 2010, which option vests with respect to the first 25% of the shares when the optionee completes 12 months of continuous service after the vesting start date, and with respect to an additional 1/48th of the shares when the optionee completes each full month of continuous service thereafter, and expires 7 years after the date of grant.

(8) In accordance with the terms of his separation agreement, all of Alnoor Shivji's options became fully vested on October 18, 2011, and such options expire on April 18, 2013.

Employment Agreements

Ivan Trifunovich

In connection with Dr. Trifunovich's appointment as our President, Chief Executive Officer and director, we entered into an executive employment agreement, effective March 8, 2012. Under the employment agreement, Dr. Trifunovich will receive an annual base salary of $360,000 per year, and he is eligible to earn an annual performance bonus of up to 50% of his then current base salary in accordance with an annual incentive plan to be established by the Company's compensation committee or board of directors. In addition, under the employment agreement, Dr. Trifunovich was granted an initial option grant of 3,000,000 shares of our common stock with an exercise price equal to $0.14 per share, with one-third of the shares subject to the option vesting on the first anniversary of Dr. Trifunovich's employment with the Company and the remaining shares vesting in eight equal quarterly installments over the two years following the first anniversary of the grant date. Dr. Trifunovich is entitled to additional annual option awards at the beginning of each year as necessary to bring his fully-diluted equity interest in the Company to 5% at the time of each such grant pursuant to the terms of his employment agreement. All of Dr. Trifunovich's unvested options granted under his employment agreement will accelerate in the event of a change of control or if his employment is terminated (except in the case of his resignation without good reason or his termination by the Company for cause).

In addition, in the event Dr. Trifunovich is terminated without cause or resigns for good reason, he is entitled to 24 months of his then-current base salary, of which one-half of such amount shall be paid in a single lump-sum amount, less applicable withholdings, and the remaining one-half of such amount shall be paid in the form of salary continuation on the Company's regular payroll schedule, less applicable withholdings, over 18 months. In addition, if he is terminated without cause or resigns for good reason within 3 months prior to or 12 months following a change of control of the Company, he is also entitled to receive an additional supplemental severance payment equal to the product of (ii) 50% of his then-current base salary, multiplied by (ii) two, which supplemental severance payment amount shall be paid in a single lump-sum amount, less applicable withholdings. Dr. Trifunovich's entitlement to such severance amounts are subject to his execution of a release of claims in favor of the Company.

Dr. Trifunovich is eligible to participate in a long-term incentive plan established by the Company under which he is entitled to receive a cash payment in connection with a change in control of the Company. Under such plan, in the event of a change in control of the Company, Dr. Trifunovich will be entitled to a cash payment upon a change of control based on the aggregate equity transaction value in such change of control transaction, as follows: (a) for a transaction with an aggregate equity transaction value of more than $50 million, and up to $75 million, he will be entitled to receive a cash payment equal to 1% of the aggregate equity transaction value; (b) for the portion, if any, of the aggregate equity transaction value in excess of $75 million and up to $100 million, he will be entitled to receive a cash payment equal to 2% of such portion of the aggregate equity transaction value; (c) for the portion, if any, of the aggregate equity transaction value in excess of $100 million and up to $150 million, he will be entitled to receive a cash payment equal to 3% of such portion of the aggregate equity transaction value; and (d) for the portion, if any, of the aggregate equity transaction value in excess of $150 million, he will be entitled to receive a cash payment equal to 5% of such portion of the aggregate equity transaction value.

The Company has also agreed that Dr. Trifunovich will be entitled to payment in the event that a distribution is made of any of the assets (including cash) of the Company to holders of any class of capital stock by reason of their ownership thereof. In such case, Dr. Trifunovich will have the right to receive a payment from the Company in connection with each such distribution equal to the amount, if any, by which (i) 5% of the total distribution amount exceeds (ii) the amount paid to him in such distribution with respect to compensatory equity interests then held by him less the exercise or other purchase price paid or payable by him for such equity interests.

Dr. Trifunovich will be entitled to tax gross up payments in the event any payments due to him under the employment agreement would be subject to the excise tax imposed by Internal Revenue Code Section 4999. Dr. Trifunovich also has signed and agreed to be bound by the terms of the Company's proprietary information and inventions assignment agreement.

John Harland

On June 13, 2011, we entered into a letter agreement with John Harland to serve as our Director of Finance and Corporate Controller. Under the letter agreement, Mr. Harland was entitled to receive an annual base salary of $180,000, which was raised to $200,000 upon his appointment as our Interim Chief Financial Officer and Vice President of Finance on March 26, 2012, and is subject to reviews by our Compensation Committee. Mr. Harland is also entitled to receive a bonus of up to 50% of his salary under certain circumstances upon a change in control or capital being raised, subject to review by our Compensation Committee, which may also award performance-based bonuses in its discretion.

Alnoor Shivji

Alnoor Shivji resigned as our President and Chief Executive Officer on October 18, 2011, and we entered into a separation agreement effective the date of his resignation. Prior to his resignation, we entered into an employment agreement with Mr. Shivji to serve as our Chairman and Chief Executive Officer, for renewable one year terms. Pursuant to this employment agreement, Mr. Shivji was entitled to receive an annual base salary of $250,000, subject to annual reviews by our Compensation Committee. Mr. Shivji was also entitled to a performance-based bonus of up to 25% of his salary, although the Compensation Committee may award performance-based bonuses in excess of such amounts in its discretion. Upon execution of his employment agreement, we granted Mr. Shivji an option to purchase 166,666 shares of our common stock at an exercise price of $1.50 per share, vesting in equal monthly installments over four years. Under the terms of Mr. Shivji's employment agreement, we agreed that if we had terminated Mr. Shivji's employment without cause or if Mr. Shivji resigned for good reason, we would pay Mr. Shivji his then current annual base salary of $262,500 for one year, payable in accordance with standard payroll procedures, any earned but unpaid base salary, any unpaid pro rata annual bonus and any amounts necessary to reimburse Mr. Shivji for employment-related expenses and for unused, but accrued, vacation days.

Following his resignation in October 2011, under the terms of his separation agreement, we agreed that we will pay Mr. Shivji his annual base salary prior to his separation of $262,500 for one year, payable in accordance with standard payroll procedures over the course of twelve months, all earned but unpaid base salary, all amounts necessary to reimburse Mr. Shivji for employment-related expenses and for unused, but accrued, vacation days. Pursuant to the separation agreement, all stock options granted to Mr. Shivji pursuant to the Company's stock incentive plans have vested in connection with his termination of employment, and Mr. Shivji will have eighteen months to exercise such stock options. In addition, if bonuses are paid under the Company's 2011 executive incentive plan to the Company's executive officers, then Mr. Shivji shall be eligible to receive a pro-rata amount of the bonus he would have received had he remained employed with the Company.

Mona Chadha

Mona Chadha's employment with us was terminated on March 26, 2012, and she will receive the severance benefits set forth in her employment agreement, dated November 10, 2009, pursuant to which we hired Ms. Chadha to serve as our Executive Vice President of Marketing and Business Development and Interim Chief Operating Officer. Pursuant to this employment agreement, Ms. Chadha was entitled to receive an annual base salary of $225,000 and a performance-based bonus of up to 40% of her salary. Under the agreement, upon the termination of Ms. Chadha's employment without cause, or if Ms. Chadha had resigned for good reason, (a) we will pay Ms. Chadha her then current annual base salary of $235,000 for six months, payable in accordance with standard payroll procedures (had the termination occurred within 12 months after the completion of a change of control of our Company, we would have paid a lump sum payment of one year's base salary), and (b) any earned but unpaid base salary, a prorated portion of her annual bonus and reimbursement for employment-related expenses and for unused, but accrued, vacation days. Receipt of salary continuation severance payments is conditioned on Ms. Chadha's not competing with us during the period of the payments and delivery of a release of claims in favor of the Company.

Donald Huffman

Donald Huffman's employment with us was terminated on March 26, 2012, and he will receive severance equal to three months of his base salary paid in the form of salary continuance conditioned on delivery of a release of claims in favor of the Company. Previously, on September 3, 2010, we had entered into an employment agreement with Donald Huffman to serve as our Chief Financial Officer. Pursuant to this employment agreement, Mr. Huffman was entitled to receive an annual base salary of $225,000 and a performance-based bonus of up to 40% of his salary.

Director Compensation

The table below summarizes the compensation we paid to non-employee directors for the fiscal year ended December 31, 2011.

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Name	Fees Earned or Paid in Cash ($)	Stock Awards (1) ($)	Option Awards (2) ($)	Non-Equity Incentive Plan Compensation ($)	Change in Pension Value and Nonqualified Deferred Compensation Earnings ($)	All Other Compensation ($)	Total ($)
Makoto Kaneshiro	$ 15,000	$ 12,500	$ 9,683	$ —	$ —	$ —	$ 37,183
Dr. R. Dean Hautamaki	$ 30,000	$ 12,500	$ 9,683	$ —	$ —	$ —	$ 52,183
Joel Kanter	$ 45,000	$ 12,500	$ 9,683	$ —	$ —	$ —	$ 67,183
Dr. Robert Hariri(3)	$ 15,000	$ 12,500	$ 9,683	$ —	$ —	$ —	$ 37,183
Robert Coradini	$ 15,000	$ 12,500	$ 9,683	$ —	$ —	$ —	$ 37,183
Nadine C. Smith(4)	$ —	$ 12,500	$ 9,683	$ —	$ —	$ —	$ 22,183
Dr. Timothy Triche(5)	$ 12,500	$ —	$ —	$ —	$ —	$ 64,900	$ 77,400

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(1) The amounts shown in column (c) represent the aggregate grant date fair value of stock awards granted in 2011 computed in accordance with FASB ASC Topic 718.

(2) The amounts shown in column (d) represent the aggregate grant date fair value of option awards granted in 2011 computed in accordance with FASB ASC Topic 718.

(3) Dr. Hariri resigned from our board of directors in December 2011. The amounts included in columns (c) and (d) include $1,562 and $2,421 attributable to 1,250 restricted stock units and 5,000 stock options, respectively, that were forfeited on termination.

(4) Ms. Smith resigned from our board of directors in February 2011. The amounts included in columns (c) and (d) include $6,250 and $9,683 attributable to 5,000 restricted stock units and 20,000 stock options, respectively, that were forfeited on termination. Further, the amounts included in columns (c) and (d) in 2010 included $5,738 and $8,755 attributable to 3,750 restricted stock units and 15,000 stock options, respectively, that were forfeited on termination.

(5) Dr. Triche was appointed to our board of directors in February 2011. He was previously a member of our Scientific Advisory Board and continues to serve the Company as a consultant.

Effective as of January 1, 2010, the board of directors approved the following annual compensation for all non-employee directors:

- Retainers. Each non-employee director shall receive an annual cash retainer fee of $15,000. The chairperson of the Audit Committee, the Compensation Committee and the Clinical Development Committee shall each receive an additional annual cash retainer fee of $15,000; and

- Annual Equity Grants. Each non-employee director shall receive annually (i) a stock option to purchase 20,000 shares of our common stock, with 25% of the shares subject to the stock option vesting every three months, such that 100% of the shares subject to the option shall be fully vested on the one year anniversary of the date of grant ("Director Options"); and (ii) 10,000 restricted stock units, with 50% of the restricted stock units vested on the date of grant and the remaining 50% of the restricted stock units vesting every three months after the date of grant, such that 100% of the restricted stock units shall be fully vested on the one year anniversary of the date of grant ("Director RSUs"). For 2010, the Director Options and Director RSUs will be granted on the date of the Annual Meeting of Stockholders. Beginning in 2011, the Director Options and Director RSUs will be granted on the first trading day in January of each year.

Effective as of April 1, 2012, the board of directors approved the following annual compensation for all non-employee directors:

> Each non-employee director shall receive annually a stock option to purchase 150,000 shares of our common stock, or, in the case of the chairperson of our Audit Committee, 175,000 shares of our common stock, with 25% of the shares subject to the stock option vesting every three months following April 1 of the year of grant, such that 100% of the shares subject to the option shall be fully vested on March 31 following the year of grant.

In addition, in March 2012 the board of directors approved of the compensation to be paid to Dr. Triche as chair of the Applications and Diagnostics Committee as follows: upon initial appointment to such committee, Dr. Triche received an option to purchase 100,000 shares of the Company's common stock, which option was 100% vested upon grant, and thereafter Dr. Triche shall receive an option grant of 50,000 shares of the Company's common stock each year on the first business day of the year, with each such option vesting in four equal quarterly installments, so long as Dr. Triche remains the chairman of such committee.

Non-employee directors are also reimbursed for traveling expenses, if any, related to attending Board meetings.

Consideration and Determination of Executive and Director Compensation

Because compensation decisions for executive officers are made by our entire board of directors, Ivan Trifunovich, our Chief Executive Officer and President, and Alnoor Shivji, our Chairman and, until October 2011, our Chief Executive Officer and President, participate in the determination of compensation policy, including by making recommendations and participating in the voting with respect to the compensation of executive officers.

Compensation Risk Management

We have considered the risk associated with our compensation policies and practices for all employees, and we believe we have designed our compensation policies and practices in a manner that does not create incentives that could lead to excessive risk taking that would have a material adverse effect on our Company.

Stock Incentive Plans

In 2003, our board of directors adopted a 2003 Incentive Stock Plan (the "2003 Plan"). The 2003 Plan authorized the board of directors to grant incentive stock options and nonstatutory 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 was no less than 100% of the fair value of the stock at the date of grant. Options vested 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 our outstanding stock 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, we increased the aggregate number of shares of our 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, our 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 our directors, officer, consultants, advisors and employees, 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 our development and financial success. Under the 2007 Plan, we were 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, our stockholders adopted the 2008 Stock Incentive Plan (the "2008 Plan") following approval of the 2008 Plan by our board of directors. The 2008 Plan authorized the issuance of up to 2,000,000 shares of common stock pursuant to the terms of the 2008 Plan. The purpose of the 2008 Plan is to provide an incentive to retain the employment of our directors, officers, consultants, advisors and employees, 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 our development and financial success. Under the 2008 Plan, we are 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 our board of directors for each grant, and have a maximum term of seven years from the grant date. The 2008 Plan is administered by our board of directors.

On December 4, 2009, we increased the aggregate number of shares of our common stock that may be issued under the 2008 Plan to a total authorized reserve of 3,500,000 shares, a 1,500,000 share increase. Notwithstanding the foregoing, no more than 1,750,000 shares of our common stock could be granted pursuant to awards of restricted stock and restricted stock units.

On September 16, 2010, we increased the aggregate number of shares of our common stock that may be issued under the 2008 Plan to a total authorized reserve of 6,500,000 shares, a 3,000,000 share increase. Notwithstanding the foregoing, no more than 3,250,000 shares of our common stock may be granted pursuant to awards of restricted stock and restricted stock units.

On December 30, 2011, we increased the aggregate number of shares of our common stock that may be issued under the 2008 Plan to a total authorized reserve of 14,500,000 shares, an 8,000,000 share increase. Notwithstanding the foregoing, no more than 7,250,000 shares of our common stock may be granted pursuant to awards of restricted stock and restricted stock units.

Securities Authorized For Issuance under Equity Compensation Plans

The following table sets forth information regarding our compensation plans under which equity securities are authorized for issuance to our employees, as of March 31, 2012:

Plan Category	Number of Securities to Be Issued upon Exercise of Outstanding Options, Warrants and Rights (a)	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights (b)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a)) (c)
Equity compensation plans approved by security holders	7,381,160	$ 0.82	$ 7,118,811
Equity compensation plans not approved by security holders	—	—	—
Total	7,381,160	$ 0.82	$ 7,118,811

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

June 2009 Private Placement

On June 16, 2009, August 21, 2009 and August 31, 2009, WBSI sold in a private placement 5,009,000 units consisting of an aggregate of 5,009,000 shares its common stock and five-year warrants to purchase an aggregate of up to 1,502,700 shares of its common stock with an exercise price of $2.00 per share. Under certain circumstances, the warrants will be exercisable using cashless exercise. The purchase price for the units was $1.25 per unit, or $6,261,250 in the aggregate. Under registration rights agreements entered in connection with the sale of the units, the purchasers are entitled "piggyback" registration rights.

The purchasers included Alnoor Shivji (our Chairman and, at the time of the purchase, also our President and Chief Executive Officer), Robert Coradini (now a member of our board of directors (but not at that time)), Dr. Robert Hariri (a member of our board of directors at that time), and certain other investors that participated in the Company's previous private placements. Messrs. Shivji and Coradini and Dr. Hariri purchased 800,000, 100,000 and 100,000 units, respectively for an aggregate purchase price of $1,000,000, $125,000 and $125,000, respectively. Messrs. Shivji and Coradini and Dr. Hariri each participated in the private placement on substantially the same terms as the other purchasers.

December 2009 Private Placement

On December 23, 2009, December 30, 2009 and January 6, 2010, we sold in a private placement 3,390,335 units consisting of an aggregate of 3,390,335 shares its common stock and five-year warrants to purchase an aggregate of up to 847,585 shares of its common stock with an exercise price of $2.50 per share. Under certain circumstances, the warrants are exercisable using cashless exercise. The purchase price for the units was $1.50 per unit, or $5,085,500 in the aggregate.

The purchasers included the Jameel Shivji Irrevocable Trust, the Shivji Children's Trust fbo Zahra Shivji and the Shivji Children's Trust fbo Suraya Shivji (each, a "Shivji Children's Trust") and The Shivji Family Trust (together with the Shivji Children's Trusts, the "Shivji Trusts") (all of which are affiliates of Alnoor Shivji, our Chairman and, at the time of the purchase, also our President and Chief Executive Officer), Cojack Investment Opportunities, LLC ("Cojack") (which is an affiliate of Dr. Raymond Dean Hautamaki, a member of our board of directors), and certain other investors that participated in our previous private placements. The Shivji Trusts and Cojack purchased 116,666, and 20,000 units, respectively, for an aggregate purchase price of $175,000, and $30,000, respectively. The Shivji Trusts and Cojack each participated in the December 2009 Private Placement on substantially the same terms as the other purchasers.

July 2010 Registered Direct Offering

On July 1, 2010, we priced a registered direct offering by entering into a securities purchase agreement with certain investors. Pursuant to the terms of the securities purchase agreement, we sold an aggregate of 6,001,667 shares of our common stock and warrants to purchase a total of 3,000,830 shares of our common stock to such investors for gross proceeds of $7,202,000 on July 7, 2010. The common stock and warrants were sold in units, with each unit consisting of one share of common stock and a warrant to purchase 50% of a share of common stock. The purchase price per unit was $1.20. Subject to certain ownership limitations, the warrants were exercisable immediately at an exercise price of $1.55 per share. The warrants expire on July 7, 2015, five years after the issuance date, and under certain circumstances are exercisable using cashless exercise. The number of shares issuable upon exercise of the warrants and the exercise price of the warrants are adjustable in the event of stock splits, combinations and reclassifications, but not in the event of the issuance by us of additional securities.

The investors included (i) The Shivji Family Trust (which is an affiliate of Alnoor Shivji, our Chairman and, at the time of the purchase, also our President and Chief Executive Officer), which purchased 833,334 units in the offering for $1,000,001, (ii) Robert Coradini, a member of our board of directors, who purchased 125,000 units in the offering for $150,000, (iii) Dr. Robert Hariri, a member of our board of directors at that time, who purchased 40,000 units in the offering for $48,000, (iv) Nadine Smith, a member of our board of directors at that time, who purchased 166,667 units in the offering for $200,000, and (v) Cojack (which is an affiliate of Dr. Raymond Dean Hautamaki, a member of our board of directors), which purchased 100,000 units in the offering for $120,000. The Shivji Family Trust, Mr. Coradini, Dr. Hariri, Ms. Smith and Cojack each participated in the July 2010 Registered Direct Offering on substantially the same terms as the other investors.

May 2011 Private Placement

On May 27, 2011, we sold 2,937,499.97 shares of Series A-1 Convertible Preferred Stock, Convertible Promissory Notes in the principal amount of $15,275,000 convertible at $0.57 per share and warrants to purchase an aggregate of up to 56,173,248 shares of our common stock in a private placement for an aggregate purchase price of $30,550,000. Subject to certain ownership limitations, the warrants were exercisable immediately at an exercise price of $0.62 per share. The warrants expire on May 27, 2016, five years after the issuance date, and under certain circumstances are exercisable using cashless exercise. Under registration rights agreements entered in connection with the sale of the units, the purchasers are entitled "piggyback" registration rights.

The purchasers included the The Shivji Family Trust (an affiliate of Alnoor Shivji, our Chairman and, at the time of the purchase, also our President and Chief Executive Officer), Joel Kanter, a member of our board of directors, The Kanter Family Foundation ("The Kanter Foundation", which is an affiliate of Joel Kanter) and Robert Coradini, a member of our board of directors. The Shivji Family Trust purchased 38,461.54 shares of Series A-1 Convertible Preferred Stock, a Convertible Promissory Note in the principal amount of $200,000 and warrants to purchase an aggregate of up to 735,493 shares of common stock for an aggregate purchase price of $400,000. Joel Kanter purchased 9,615.38 shares of Series A-1 Convertible Preferred Stock, a Convertible Promissory Note in the principal amount of $50,000 and warrants to purchase an aggregate of up to 183,873 shares of common stock for an aggregate purchase price of $100,000. The Kanter Foundation purchased 4,807.69 shares of Series A-1 Convertible Preferred Stock, a Convertible Promissory Note in the principal amount of $25,000 and warrants to purchase an aggregate of up to 91,937 shares of common stock for an aggregate purchase price of $50,000. Robert Coradini purchased 24,037.46 shares of Series A-1 Convertible Preferred Stock, a Convertible Promissory Note in the principal amount of $125,000 and warrants to purchase an aggregate of up to 459,683 shares of common stock for an aggregate purchase price of $250,000. The Shivji Family Trust, Joel Kanter, The Kanter Foundation and Robert Coradini each participated in the May 2011 Private Placement on substantially the same terms as the other purchasers.

Compensation Arrangements

See "Executive Compensation," above for information about employment agreements and other compensation arrangements between us and our executive officers and directors.

Director Independence

We are not currently listed on any national securities exchange that has a requirement that our board of directors be independent. However, in evaluating the independence of its members and the composition of the committees of our board of directors, we utilize the definition of "independence" as that term is defined by SEC rules.

Our board of directors believes that Messrs. Coradini, Davidson, Kaneshiro, Kanter and Pesce, Drs. Hariri, Hautamaki and Triche and Ms. Smith qualify (or qualified during their period of service) as "independent" directors, as that term is defined by SEC rules.

DESCRIPTION OF SECURITIES

Authorized Capital Stock

Our articles of incorporation, as amended and restated, authorizes 310,000,000 shares of capital stock, par value $0.001 per share, of which 300,000,000 are shares of common stock and 10,000,000 are shares of "blank-check" preferred stock.

Description of Common Stock

We are authorized to issue 300,000,000 shares of common stock, 41,649,402 shares of which were issued and outstanding as of March 31, 2012. The holders of our common stock are entitled to one vote per share on all matters submitted to a vote of the stockholders, including the election of directors. Generally, all matters to be voted on by stockholders must be approved by a majority of the votes entitled to be cast by all shares of common stock that are present in person or represented by proxy, subject to any voting rights granted to holders of any preferred stock. Except as otherwise provided by law, and subject to any voting rights granted to holders of any preferred stock, amendments to our Articles of Incorporation generally must be approved by a majority of the votes entitled to be cast by all outstanding shares of common stock. Our Articles of Incorporation do not provide for cumulative voting in the election of directors. Subject to any preferential rights of any outstanding series of preferred stock created by our board of directors from time to time, the holders of our common stock will be entitled to cash dividends as may be declared, if any, by our board of directors from funds available. Subject to any preferential rights of any outstanding series of preferred stock, upon liquidation, dissolution or winding up of our company, the holders of our common stock will be entitled to receive pro rata all assets available for distribution to the holders.

Description of Preferred Stock

We are authorized to issue 10,000,000 shares of *"blank check"* preferred stock. Our board of directors is vested with authority to divide the shares of preferred stock into series and to fix and determine the relative designation, powers, preferences and rights of the shares of any series and the qualifications, limitations, or restrictions or any unissued series of preferred stock. Our board of directors has designated 9,000,000 shares of Series A Preferred Stock, of which 4,500,000 shares are designated Series A-1 Preferred Stock, 2,937,499.97 shares of which are issued and outstanding, and 4,500,000 shares are designated Series A-2 Preferred Stock, none of which are issued or 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.

Pursuant to the Certificate of Designation, the Series A-1 Preferred Stock and the Series A-2 Preferred Stock carry a cumulative dividend rate of 5% per annum of their respective stated values through November 27, 2014, compounding quarterly. In the case of the Series A-1 Preferred, the stated value is $5.20 per share and, in the case of Series A-2 Preferred, the stated value is $5.70 per share, plus in each case an amount equal to any accrued (whether or not declared) or declared, but unpaid dividends on such shares of Series A Preferred.

So long as any shares of Series A Preferred are outstanding, the Certificate of Designation provides, among other things, that we may not at any time declare or pay dividends on, make distributions with respect to, or redeem, purchase or acquire, or make a liquidation payment with respect to, or pay or make available monies for a sinking fund for the redemption of, any common stock or other class or series of our capital stock created after the Series A Preferred unless in each case full dividends on all outstanding shares of the Series A Preferred have been paid or (in the case of current dividends) declared and set aside for payment, provided, however, that the foregoing shall not restrict certain permitted repurchases by us, as provided in the Certificate of Designation.

With certain exceptions, as described in the Certificate of Designation, the Series A Preferred have no voting rights. However, as long as any shares of Series A Preferred remain outstanding, the Certificate of Designation provides that we shall not, without the affirmative vote of holders of not less than 67% of the then outstanding Series A Preferred, (a) alter or change adversely the powers, preferences or rights given to the Series A Preferred or alter or amend the Certificate of Designation, (b) increase the number of authorized shares of Series A Preferred, (c) effect a stock split or reverse stock split of the Series A Preferred or any like event, (d) offer or sell any debt securities or any preferred stock (other than shares of Series A Preferred in connection with the conversion of the Notes) or any security convertible into or exercisable for our preferred stock, (e) declare or pay dividends on, or make distributions with respect to, any of our capital stock, or (f) enter into any agreement with respect to any of the foregoing.

Each share of Series A Preferred is convertible at any time at the holder's option into 10 shares of our common stock, subject to adjustment for stock splits, stock dividends, distributions, subdivisions and combinations, provided, however, that the Certificate of Designation further provides that we shall not effect any conversion of Series A Preferred, with certain exceptions, to the extent

that, after giving effect to an attempted conversion, the holder of Series A Preferred (together with such holder's affiliates, and any other person whose beneficial ownership of common stock would be aggregated with the holder's for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the applicable regulations thereunder, including any "group" of which the holder is a member) would beneficially own a number of shares of common stock in excess of 9.985% of the shares of our common stock then outstanding.

Liability and Indemnification of Directors and Officers

Nevada Revised Statutes (NRS) Sections 78.7502 and 78.751 provide us with the power to indemnify any of our directors and officers. The director or officer must have conducted himself/herself in good faith and reasonably believe that his/her conduct was in, or not opposed to, our best interests. In a criminal action, the director or officer must not have had reasonable cause to believe his/her conduct was unlawful.

Under NRS Section 78.751, advances for expenses may be made by agreement if the director or officer affirms in writing that he/she believes he/she has met the standards and will personally repay the expenses if it is determined the officer or director did not meet the standards.

Our bylaws include an indemnification provision under which we have the power to indemnify, to the extent permitted under Nevada law, our current and former directors and officers, or any person who serves or served at our request for our benefit as a director or officer of another corporation or our representative in a partnership, joint venture, trust or other enterprise, against all expenses, liability and loss reasonably incurred by reason of being or having been a director, officer or representative of ours or any of our subsidiaries. We may make advances for expenses upon receipt of an undertaking by or on behalf of the director or officer to repay the amount if it is ultimately determined by a court of competent jurisdiction that he/she is not entitled to be indemnified by us. If Section 2115 of the CGCL is applicable to us, the laws of California also will govern.

Our articles of incorporation provide a limitation of liability such that no director or officer shall be personally liable to us or any of our stockholders for damages for breach of fiduciary duty as a director or officer, involving any act or omission of any such director or officer, provided there was no intentional misconduct, fraud or a knowing violation of the law, or payment of dividends in violation of NRS Section 78.300.

We have entered into separate indemnification agreements with our directors and officers which would require us, among other things, to indemnify them against certain liabilities which may arise by reason of their status or service as directors or officers to the fullest extent permitted by law. At present, there is no pending litigation or proceeding involving any of our directors or officers of regarding which indemnification is sought, nor are we aware of any threatened litigation that may result in claims for indemnification. We also maintain insurance policies that indemnify our directors and officers against various liabilities, including liabilities arising under the Securities Act, that might be incurred by any director or officer in his or her capacity as such.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted for our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event a claim for indemnification against such liabilities (other than payment by us for expenses incurred or paid by a director, officer or controlling person of ours in successful defense of any action, suit, or proceeding) is asserted by a director, officer or controlling person in connection with the securities being registered, we will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction, the question of whether such indemnification by it is against public policy in the Securities Act and will be governed by the final adjudication of such issue.

Anti-Takeover Effects of Provisions of Nevada State Law

In the future we may become subject to Nevada's control share law. A corporation is subject to Nevada's control share law if it has more than 200 stockholders, at least 100 of whom are stockholders of record and residents of Nevada, and if the corporation does business in Nevada or through an affiliated corporation.

The law focuses on the acquisition of a "controlling interest" which means the ownership of outstanding voting shares is sufficient, but for the control share law, to enable the acquiring person to exercise the following proportions of the voting power of the corporation in the election of directors: (1) one-fifth or more but less than one-third, (2) one-third or more but less than a majority, or (3) a majority or more. The ability to exercise voting power may be direct or indirect, as well as individual or in association with others.

The effect of the control share law is that the acquiring person, and those acting in association with that person, obtain only voting rights in the control shares as are conferred by a resolution of the stockholders of the corporation, approved at a special or annual meeting of stockholders. The control share law contemplates that voting rights will be considered only once by the other stockholders. Thus, there is no authority to take away voting rights from the control shares of an acquiring person once those rights have been approved. If the stockholders do not grant voting rights to the control shares acquired by an acquiring person, those shares do not become permanent non-voting shares. The acquiring person is free to sell its shares to others. If the buyers of those shares themselves do not acquire a controlling interest, their shares do not become governed by the control share law.

If control shares are accorded full voting rights and the acquiring person has acquired control shares with a majority or more of the voting power, any stockholder of record, other than an acquiring person, who has not voted in favor of approval of voting rights is entitled to demand fair value for the stockholder's shares.

Nevada's control share law may have the effect of discouraging corporate takeovers.

In addition to the control share law, Nevada has a business combination law, which prohibits some business combinations between Nevada corporations and "interested stockholders" for three years after the "interested stockholder" first becomes an "interested stockholder" unless the corporation's board of directors approves the combination in advance. For purposes of Nevada law, an "interested stockholder" is any person who is (1) the beneficial owner, directly or indirectly, of ten percent or more of the voting power of the outstanding voting shares of the corporation, or (2) an affiliate or associate of the corporation and at any time within the three previous years was the beneficial owner, directly or indirectly, of ten percent or more of the voting power of the then outstanding shares of the corporation. The definition of the term "business combination" is sufficiently broad to cover virtually any kind of transaction that would allow a potential acquirer to use the corporation's assets to finance the acquisition or otherwise to benefit its own interests rather than the interests of the corporation and its other stockholders.

The effect of Nevada's business combination law is to potentially discourage parties interested in taking control of our company from doing so if it cannot obtain the approval of our board of directors.

Transfer Agent

The transfer agent for our common stock is Continental Stock Transfer & Trust Company. The transfer agent address is 17 Battery Place, 8th Fl., New York, NY 10004, and its telephone number is (212) 845-3212.

LEGAL MATTERS

The validity of the common stock being offered hereby has been passed upon by McDonald Carano Wilson, LLP, Reno, Nevada.

EXPERTS

SingerLewak LLP, an independent registered public accounting firm, have audited our financial statements for the years ended December 31, 2011, as stated in their report appearing herein, and have been so included in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

Rowbotham and Company LLP, an independent registered public accounting firm, have audited our financial statements for the year ended December 31, 2010, as stated in their report appearing herein, and have been so included in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

CHANGES IN REGISTRANT'S CERTIFYING ACCOUNTANT

Our Audit Committee approved of the engagement of SingerLewak LLP ("SingerLewak") as our new independent registered public accounting firm on April 15, 2011, and dismissed Rowbotham and Company LLP ("Rowbotham") from that role on April 15, 2011.

During our fiscal year ended December 31, 2010, and through April 15, 2011, we did not consult with SingerLewak regarding any matters described in Items 304(a)(2)(i) or 304(a)(2)(ii) of Regulation S-K.

The reports of Rowbotham on our consolidated financial statements for the fiscal year ended December 31, 2010, did not contain an adverse opinion or a disclaimer of opinion, nor were such reports qualified or modified as to uncertainty, audit scope or accounting principles, except that our audited financial statements included in our annual report on Form 10-K for the year ending December 31, 2010, contained an explanatory paragraph expressing substantial doubt about our ability to continue as a going concern.

During our fiscal year ended December 31, 2010, and through April 15, 2011, there were no "reportable events" (as defined in Item 304(a)(1)(v) of Regulation S-K), except that in connection with management's assessment of our internal control over financial reporting, we identified certain material weaknesses in our internal control over financial reporting as follows:

(A) as of the end each of the first two quarters of the year ended December 31, 2010, we identified the following material weaknesses in our internal control over financial reporting: (i) we had not designed or otherwise maintained adequate controls to ensure that we adopted new accounting policies with respect to non-routine matters, such as the accounting of warrants with anti-dilution protection; (ii) we had 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; and (iii) we had insufficient documentation of our information technology general control environment;

(B) as of the end of the third quarter for the year ended December 31, 2010: (i) we had 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; (ii) we had insufficient documentation of our information technology general control environment; and (iii) we relied on our external auditors to review and adjust our accounting and related financial disclosures regarding the Redeemable Convertible Preference Shares of our subsidiary; and

(C) as of the end of the fourth quarter for the year ended December 31, 2010, we identified the following material weaknesses in our internal control over financial reporting: (i) we had 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; and (ii) we relied on our external auditors to review and adjust our accounting and related financial disclosures regarding the Redeemable Convertible Preference Shares of our subsidiary.

Our Audit Committee discussed each of the matters contained in the third and fourth paragraphs above with Rowbotham. We authorized Rowbotham to respond fully to the inquiries of our successor accountants concerning each of these matters.

During our fiscal year ended December 31, 2010, and through April 15, 2011, we did not have any disagreements with Rowbotham on any matter of accounting principles or practices, financial statement disclosure or auditing scope or procedure which, if not resolved to the satisfaction of Rowbotham, would have caused it to make reference to the subject matter of the disagreements in connection with its reports on the consolidated financial statements for such years.

WHERE YOU CAN FIND MORE INFORMATION

We file annual reports, quarterly reports, current reports, proxy statements and other information with the SEC. You may read or obtain a copy of these reports at the SEC's public reference room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549, on official business days during the hours of 10:00 am to 3:00 pm. You may obtain information on the operation of the public reference room and its copy charges by calling the SEC at 1-800-SEC-0330. The SEC maintains a website that contains registration statements, reports, proxy information statements and other information regarding registrants that file electronically with the SEC. The address of the website is http://www.sec.gov.

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock being offered by this prospectus. This prospectus is part of that registration statement. This prospectus does not contain all of the information set forth in the registration statement or the exhibits to the registration statement. For further information with respect to us and the shares we are offering pursuant to this prospectus, you should refer to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract, agreement or other document referred to are not necessarily complete, and you should refer to the copy of that contract or other documents filed as an exhibit to the registration statement. You may read or obtain a copy of the registration statement at the SEC's public reference room and website referred to above.

WAFERGEN BIO-SYSTEMS, INC.

FINANCIAL STATEMENTS

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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

	December 31, 2011	December 31, 2010
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	$ (13,370,382)	$ (11,862,885)

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

WAFERGEN BIO-SYSTEMS, INC. AND SUBSIDIARIES

Consolidated Statements of Stockholders' Equity (Deficit)

	Preferred Stock		Common Stock		Additional Paid-in	Accumulated	Accumulated Other Comprehensive	
	Shares	Amount	Shares	Amount	Capital	Deficit	Income	Total
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 Shares of Subsidiary		Series A-1 Preferred Stock		Common Stock		Additional Paid-in	Accumulated	Accumulated Other Comprehensive	
	Shares	Amount	Shares	Amount	Shares	Amount	Capital	Deficit	Income	Total
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	$ 4,567,066	$ 6,117,134	$2,937,500	$9,838,569	$41,619,402	$ 41,619	$49,504,516	$ (56,395,235)	$ 62,573	$ 9,169,176

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	(17,087,267)	(12,809,247)
Cash flows from investing activities:		
Purchase of property and equipment	(621,120)	(1,120,808)
Net cash used in investing activities	(621,120)	(1,120,808)
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	30,826,877	9,977,729
Effect of exchange rates on cash	(211,259)	208,628
Net increase (decrease) in cash and cash equivalents	12,907,231	(3,743,698)
Cash and cash equivalents at beginning of the period	2,209,941	5,953,639
Cash and cash equivalents at end of the period	$ 15,117,172	$ 2,209,941

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.

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.

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.

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.

NOTE 3. Inventories

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

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

NOTE 4. Property and Equipment

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

	December 31, 2011	December 31, 2010
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	(1,520,344)	(1,289,794)
Property and equipment, net	$ 1,714,090	$ 1,191,840

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.

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	Allocated Fair Value	Issuance Costs	Interest Expense	Net Allocation
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	$ 30,550,000	$ (2,524,963)	$ 2,255,074	30,280,111

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.

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

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

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:

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

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.

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).

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).

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

	December 31, 2011	December 31, 2010
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
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)	—
Total Series A CPS	—	2,269,133
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)	—
Total Series B CPS	—	1,068,343
Total temporary equity	$ —	$ 3,337,476

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 MTDCLA), 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.

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

	December 31, 2011	December 31, 2010
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

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

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).

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):

	December 31, 2011	December 31, 2010
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:

Securities Into Which Warrants are Convertible	Warrants Outstanding	Warrants Subject to Anti-Dilution	Exercise Price	Expiration Date
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

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.

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:

December 31, 2011	Level 1	Level 2	Level 3	Total
Financial Assets:				
Cash and cash equivalents	$ 15,117,172	$ —	$ —	$ 15,117,172
Total assets	$ 15,117,172	$ —	$ —	$ 15,117,172
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	$ —	$ —	$ 5,967,330	$ 5,967,330

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

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:

	Warrant Derivatives	Conversion Element of Promissory Notes	Conversion Element of Series B CPS	Series A CPS Derivatives	Total
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	$ 655,219	$ 1,931,295	$ 1,245,101	$ 2,135,715	$ 5,967,330
Total gains (losses) included in other income and expenses attributable to liabilities still held as of December 31, 2011	$ 1,324,165	$ 8,989,945	$ (1,051,103)	$ 63,113	$ 9,326,210

	Warrant Derivatives	Conversion Element of Promissory Notes	Conversion Element of Series B CPS	Series A CPS Derivatives	Total
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	$ 2,240,962	$ —	$ 194,088	$ —	$ 2,435,050
				—	
Total gains included in other income and expenses attributable to liabilities still held as of December 31, 2010	$ 555,144	$ —	$ 28,875	$ —	$ 584,019

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):

	Year Ended December 31,	
	2011	2010
Interest	$ 127,062	$ 2,736
Income taxes	$ 24,817	$ —

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	$ —

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
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, 2011	December 31, 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
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)
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.

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	$ 645,000

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, 2011	2010
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	16,231,668	—
Total common share equivalents excluded from denominator for diluted earnings per share computation	70,061,153	4,398,991

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)

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WAFERGEN BIO-SYSTEMS, INC.

PROSPECTUS

Up to 112,346,479 shares of common stock, par value $0.001 per share

, 2012

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

Set forth below is an estimate (except for registration fees, which are actual) of the approximate amount of the fees and expenses payable by us in connection with the issuance and distribution of the shares of common stock.

EXPENSE	AMOUNT
Registration Fees	$ 7,696
Legal Fees	105,000
Accounting Fees	65,000
Miscellaneous Fees and Expenses	7,000
Total	$ 184,696

Item 14. Indemnification of Directors and Officers.

Nevada Revised Statutes ("NRS") Sections 78.7502 and 78.751 provide us with the power to indemnify any of our directors, officers, employees and agents. The person entitled to indemnification must have conducted himself in good faith, and must reasonably believe that his conduct was in, or not opposed to, our best interests. In a criminal action, the director, officer, employee or agent must not have had reasonable cause to believe that his conduct was unlawful.

Under NRS Section 78.751, advances for expenses may be made by agreement if the director or officer affirms in writing that he has met the standards for indemnification and will personally repay the expenses if it is determined that such officer or director did not meet those standards.

Our bylaws include an indemnification provision under which we have the power to indemnify, to the extent permitted under Nevada law, our current and former directors and officers, or any person who serves or served at our request for our benefit as a director or officer of another corporation or our representative in a partnership, joint venture, trust or other enterprise, against all expenses, liability and loss reasonably incurred by reason of being or having been a director, officer or representative of ours or any of our subsidiaries. We may make advances for expenses upon receipt of an undertaking by or on behalf of the director or officer to repay the amount if it is ultimately determined by a court of competent jurisdiction that he/she is not entitled to be indemnified by us. If Section 2115 of the CGCL is applicable to us, the laws of California also will govern.

Our articles of incorporation provide a limitation of liability such that no director or officer shall be personally liable to us or any of our stockholders for damages for breach of fiduciary duty as a director or officer, involving any act or omission of any such director or officer, provided there was no intentional misconduct, fraud or a knowing violation of the law, or payment of dividends in violation of NRS Section 78.300.

We have entered into separate indemnification agreements with our directors and officers which would require us, among other things, to indemnify them against certain liabilities which may arise by reason of their status or service as directors or officers to the fullest extent permitted by law. At present, there is no pending litigation or proceeding involving any of our directors or officers of regarding which indemnification is sought, nor are we aware of any threatened litigation that may result in claims for indemnification. We also maintain insurance policies that indemnify our directors and officers against various liabilities, including liabilities arising under the Securities Act, that might be incurred by any director or officer in his or her capacity as such.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of ours under Nevada law or otherwise, we have been advised the opinion of the Securities and Exchange Commission is that such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event a claim for indemnification against such liabilities (other than payment by us for expenses incurred or paid by a director, officer or controlling person of ours in successful defense of any action, suit, or proceeding) is asserted by a director, officer or

controlling person in connection with the securities being registered, we will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction, the question of whether such indemnification by it is against public policy in the Securities Act and will be governed by the final adjudication of such issue.

Item 15. Recent Sales of Unregistered Securities.

Malaysian Financings

On April 3, 2009, WaferGen Bio-systems, Inc. ("WBSI") and our Malaysian subsidiary, WaferGen Biosystems (M) Sdn. Bhd. ("WGBM") entered into a subscription agreement with two investors pursuant to which WGBM agreed to sell 666,666 shares of Series B Redeemable Convertible Preference Shares ("Series B RCPS") to these investors in a private placement at a price of US$2.25 per share. On July 1, 2009, WBSI and WGBM entered into a subscription agreement with another investor pursuant to which WGBM agreed to sell 188,057 shares of Series B RCPS to another investor under substantially the same terms. The aggregate purchase price for the Series B RCPS is US$1.9 million, all of which was received between June 8, 2009 and May 13, 2010.

The Series B RCPS (the "RCPS") have a liquidation preference over WGBM's ordinary shares in an amount equal to the purchase price of the RCPS, plus any accrued but unpaid dividends. WGBM is not obligated to declare or pay dividends on the RCPS. Holders of the RCPS generally will not have voting rights, except as required under Malaysian law. WGBM will be required to obtain the consent of the holders of at least a majority of the outstanding RCPS prior to taking certain actions. Each RCPS will be convertible into ordinary shares of WGBM at the option of the holder at any time based on the applicable conversion rate at such time.

The holders of the RCPS have the right, at any time after December 31, 2011, to cause WGBM to redeem the RCPS at a price equal to the purchase price of the RCPS, plus a redemption premium of 20% per annum, from funds legally available for distribution. The holders of the RCPS also have certain put rights with respect to their shares as follows: (1) the holders will have the right to cause WBSI to exchange their RCPS for common stock of WBSI at an effective exchange rate of US$2.25 per share of WBSI common stock, provided that if during the 10-day trading period immediately prior to the holder's conversion notice the average closing price of WBSI's common stock is less than US$2.647, then the holder's Series B RCPS shall convert at an exchange rate equal to 85% of such 10-day average closing price; (2) the holders had the right to cause WBSI to purchase all of the RCPS at a price of US$2.25 per share, plus interest at a rate of 8% per annum with yearly rests, if (x) there was a breach of the subscription agreement by WBSI or WGBM or (y) during the year 2011, the price of WBSI's stock was below US$2.25 or the holder was unable to exercise its put as described in clause (1) above as a result of any breach or default of the subscription agreement by WBSI.

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, ("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. Each Series C CPS will convert into one share of WBSI's common stock on the anniversary of each closing, or at any earlier date MTDC's option. MTDC may also elect to convert their Series C CPS into ordinary shares of our subsidiary, WGBM, at any time, at a conversion rate of one ordinary share per 100 CPS.

The proceeds from the private placements have been or will be used to support the high-volume manufacturing of our SmartChip System.

June 2009 Private Placement

In June 2009, we sold, in a private placement, 3,305,000 units consisting of an aggregate of 3,305,000 shares of its common stock and five-year warrants to purchase an aggregate of up to 991,500 shares of its common stock with an exercise price of $2.00 per share. In August 2009, we sold, in the same private placement, a further 1,704,000 units consisting of an aggregate of 1,704,000 shares its common stock and five-year warrants to purchase an aggregate of up to 511,200 shares of its common stock with an exercise price of $2.00 per share. Under certain circumstances, the warrants are exercisable using cashless exercise. The purchase price for the units was $1.25 per unit, or $6,261,250 in the aggregate.

The purchasers included Alnoor Shivji (our Chairman and, at the time of the purchase, also our President and Chief Executive Officer), Robert Coradini (now a member of our board of directors (but not at the time of the purchase)), Dr. Robert Hariri (a member of our board of directors at that time), and certain other investors that participated in our previous private placements. Messrs. Shivji and Coradini and Dr. Hariri purchased 800,000, 100,000 and 100,000 units, respectively, for an aggregate purchase price of $1,000,000, $125,000 and $125,000, respectively. Messrs. Shivji and Coradini and Dr. Hariri each participated in the private placement on substantially the same terms as the other purchasers.

Net proceeds received from the June 2009 Private Placement were used for research and development, sales and marketing, an investor relations program and repayment of debt and for working capital and other general corporate purposes.

December 2009 Private Placement

On December 23, 2009, December 30, 2009 and January 6, 2010, we sold, in a private placement, 3,390,335 units consisting of an aggregate of 3,390,335 shares its common stock and five-year warrants to purchase an aggregate of up to 847,585 shares of its common stock with an exercise price of $2.50 per share. Under certain circumstances, the warrants will be exercisable using cashless exercise. The purchase price for the units was $1.50 per unit, or $5,085,500 in the aggregate.

The purchasers included the Jameel Shivji Irrevocable Trust, the Shivji Children's Trust fbo Zahra Shivji and the Shivji Children's Trust fbo Suraya Shivji (each, a "Shivji Children's Trust") and The Shivji Family Trust (together with the Shivji Children's Trusts, the "Shivji Trusts") (all of which are affiliates of Alnoor Shivji, our Chairman and, at the time of the purchase, also our President and Chief Executive Officer), Cojack Investment Opportunities, LLC ("Cojack") (which is an affiliate of Dr. R. Dean Hautamaki, a member of our board of directors), and certain other investors that participated in our previous private placements. The Shivji Trusts and Cojack purchased 116,666, and 20,000 units, respectively, for an aggregate purchase price of $175,000, and $30,000, respectively. The Shivji Trusts and Cojack each participated in the December 2009 Private Placement on substantially the same terms as the other purchasers.

Net proceeds received from the December 2009 Private Placement were used for research and development, sales and marketing, an investor relations program and repayment of debt and for working capital and other general corporate purposes.

May 2011 Private Placement

On May 27, 2011, we sold 2,937,499.97 shares of Series A-1 Convertible Preferred Stock, Convertible Promissory Notes in the principal amount of $15,275,000 convertible at $0.57 per share and warrants to purchase an aggregate of up to 56,173,248 shares of common stock in a private placement for an aggregate purchase price of $30,550,000. Subject to certain ownership limitations, the warrants were exercisable immediately at an exercise price of $0.62 per share. The warrants expire on May 27, 2016, five years after the issuance date, and under certain circumstances are exercisable using cashless exercise. Under registration rights agreements entered in connection with the sale of the units, the purchasers are entitled "piggyback" registration rights.

The purchasers included The Shivji Family Trust (an affiliate of Alnoor Shivji, our Chairman and, at the time of the purchase, also our President and Chief Executive Officer), Joel Kanter, a member of our board of directors, The Kanter Family Foundation ("The Kanter Foundation", which is an affiliate of Joel Kanter) and Robert Coradini, a member of our board of directors. The Shivji Family Trust purchased 38,461.54 shares of Series A-1 Convertible Preferred Stock, a Convertible Promissory Note in the principal amount of $200,000 and warrants to purchase an aggregate of up to 735,493 shares of common stock for an aggregate purchase price of $400,000. Joel Kanter purchased 9,615.38 shares of Series A-1 Convertible Preferred Stock, a Convertible Promissory Note in the principal amount of $50,000 and warrants to purchase an aggregate of up to 183,873 shares of common stock for an aggregate purchase price of $100,000. The Kanter Foundation purchased 4,807.69 shares of Series A-1 Convertible

Preferred Stock, a Convertible Promissory Note in the principal amount of $25,000 and warrants to purchase an aggregate of up to 91,937 shares of common stock for an aggregate purchase price of $50,000. Robert Coradini purchased 24,037.46 shares of Series A-1 Convertible Preferred Stock, a Convertible Promissory Note in the principal amount of $125,000 and warrants to purchase an aggregate of up to 459,683 shares of common stock for an aggregate purchase price of $250,000. The Shivji Family Trust, Joel Kanter, The Kanter Foundation and Robert Coradini each participated in the May 2011 Private Placement on substantially the same terms as the other purchasers.

Net proceeds received from the May 2011 Private Placement will be used for expanding the commercialization capabilities of the company to market the SmartChip Real-Time PCR system and related products, and for working capital and general corporate purposes.

The Malaysian Financings made solely in "offshore transactions," as defined in Regulation S under the Securities Act. The June 2009 Private Placement, the December 2009 Private Placement and the May 2011 Private Placement were made solely to "accredited investors," as defined in Regulation D under the Securities Act, or "qualified institutional buyers" as defined in Rule 144A(a) under the Securities Act. The securities sold in the Malaysian Financings, the June 2009 Private Placement, the December 2009 Private Placement and the May 2011 Private Placement were not, prior to their issuance, registered under the Securities Act, or the securities laws of any state, and were offered and sold in reliance on the exemption from registration afforded by Section 4(2) and Regulation D (Rule 506) or Regulation S under the Securities Act and corresponding provisions of state securities laws, which exempt transactions by an issuer not involving any public offering.

Item 16. 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 registration statement on Form S-1/A or are incorporated herein by reference to a prior filing, in accordance with Rule 12b-32 under the Securities Exchange Act of 1934.

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
5.1	Opinion of McDonald Carano Wilson LLP		S-1/A		5.1	10/28/2011
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	12/31/2009	10.1	3/22/2010
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

Exhibit Number	Exhibit Description	Filed Herewith	Incorporated by Reference			
			Form	Period Ending	Exhibit	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

Exhibit Number	Exhibit Description	Filed Herewith	Incorporated by Reference			
			Form	Period Ending	Exhibit	Filing Date
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 Kumpalan 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
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

Exhibit Number	Exhibit Description	Filed Herewith	Incorporated by Reference			
			Form	Period Ending	Exhibit	Filing Date
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
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, SingerLewak LLP	X				
23.2	Consent of Independent Registered Public Accounting Firm, Rowbotham & Company LLP	X				
23.3	Letter of Consent from McDonald Carano Wilson LLP (included in Exhibit 5.1)		S-1/A		5.1	10/28/2011

Exhibit Number	Exhibit Description	Filed Herewith	Incorporated by Reference			
			Form	Period Ending	Exhibit	Filing Date
24.1	Power of Attorney (included in page II-11)	X				
101 §	The following financial information from the Company's Annual 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.		10-K	12/31/2011	101	3/23/2012

† 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.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of the securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered that remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability of the undersigned registrant under the Securities Act to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424 (§ 230.424 of this chapter);

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable.

In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of

appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

For the purpose of determining liability under the Securities Act to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A (§ 230.430A of this chapter), shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Fremont, State of California, on April 27, 2012.

WAFERGEN BIO-SYSTEMS, INC.

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

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Alnoor Shivji, Ivan Trifunovich and John Harland as his true and lawful attorney-in-fact and agent, with full power of substitution and re-substitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement on Form S-1, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent or any of them, or of their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

SIGNATURE	TITLE	DATE
/s/ IVAN TRIFUNOVICH Ivan Trifunovich	Chief Executive Officer and President (Principal Executive Officer)	April 27, 2012
/s/ JOHN HARLAND John Harland	Interim Chief Financial Officer and Vice President of Finance (Principal Financial Officer and Principal Accounting Officer)	April 27, 2012
/s/ ALNOOR SHIVJI Alnoor Shivji	Chairman of the Board	April 27, 2012
/s/ ROBERT CORADINI Robert Coradini	Director	April 27, 2012
/s/ SCOTT DAVIDSON Scott Davidson	Director	April 27, 2012
Dr. R. Dean Hautamaki	Director	
/s/ MAKOTO KANESHIRO Makoto Kaneshiro	Director	April 27, 2012
/s/ JOEL KANTER Joel Kanter	Director	April 27, 2012
/s/ JOSEPH PESCE Joseph Pesce	Director	April 27, 2012
/s/ DR. TIMOTHY TRICHE Dr. Timothy Triche	Director	April 27, 2012

EXHIBIT INDEX

Exhibit Number	Exhibit Description
21.1	Subsidiaries of the Registrant
23.1	Consent of Independent Registered Public Accounting Firm, SingerLewak LLP
23.2	Consent of Independent Registered Public Accounting Firm, Rowbotham & Company LLP
23.3	Letter of Consent from McDonald Carano Wilson LLP (previously filed as Exhibit 5.1)
24.1	Power of Attorney (included in page II-11)

EXHIBIT 21.1

SUBSIDIARIES OF THE REGISTRANT

Name	Jurisdiction
Wafergen, Inc.	Delaware
WaferGen Biosystems (M) Sdn. Bhd.	Malaysia
WaferGen Biosystems R & D Sdn. Bhd. (Inactive)	Malaysia
WaferGen Biosystems Europe S. a. r.1.	Luxembourg

EXHIBIT 23.1

Consent of Independent Registered Public Accounting Firm

We consent to use in this Post-Effective Amendment No. 1 to Registration Statement (No. 333-175507) on Form S-1 of WaferGen Bio-systems, Inc. of our report dated March 23, 2012, relating to our audit of the consolidated financial statements, appearing in the Prospectus, which is a part of such Registration Statement, and to the reference to our firm under the caption “Experts” in such Prospectus.

/s/ *SingerLewak LLP*

San Jose, California
April 27, 2012

EXHIBIT 23.2

Consent of Independent Registered Public Accounting Firm

We hereby consent to the use in this Post Effective Amendment No. 1 to the Registration Statement on Form S-1 (File No. 333-175507) of our report dated March 31, 2011 (except for Notes 1 and 2 for which the date is March 23, 2012), relating to the consolidated financial statements of WaferGen Bio-systems, Inc. included in its Annual Report on Form 10-K for the year ended December 31, 2011, filed with the Securities and Exchange Commission. We also consent to the references to us under the headings “Experts” in such Registration Statement.

/s/ Rowbotham and Company LLP

San Francisco, California
April 27, 2012