Arrayit Corp
Form 10-K/A
February 06, 2012

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-KA

(Mark One)

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

For the fiscal year ended December 31, 2010

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

For the transition period from_____ to _____

Commission file number: 001-16381

ARRAYIT CORPORATION

(Exact name of small business issuer as specified in its charter)

NEVADA	**76-0600966**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)

524 East Weddell Drive, Sunnyvale, CA 94089

(Address of principal executive offices)

408-744-1331

(Registrant's telephone number)

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

NONE

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

Common Stock, $0.001 par value per share

(Title of Class)

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

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

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

Check if there is no disclosure of delinquent filers in response to Item 405 of Regulation S-B not contained in this form, and no disclosure will be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. [ ]

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

Large accelerated filer [ ] Accelerated filer [ ]

Non-accelerated filer [ ] Smaller reporting company [X]

(Do not check if a smaller reporting company)

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

The issuer's revenues for the most recent fiscal year ended December 31, 2010 were $3,076,967.

The aggregate market value of the voting and non-voting common equity held by nonaffiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant s most recently completed second fiscal quarter was $13,600,299

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As of April 15, 2011, there were 26,127,767 shares of common stock outstanding.

ARRAYIT CORPORATION

FORM 10-K

YEAR ENDED DECEMBER 31, 2010

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PART I

ITEM 1. BUSINESS

CERTAIN STATEMENTS IN THIS ANNUAL REPORT ON FORM 10-K (THIS "FORM 10-K"), INCLUDING STATEMENTS UNDER "ITEM 1. BUSINESS," AND "ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS", CONSTITUTE "FORWARD LOOKING STATEMENTS" WITHIN THE MEANING OF SECTION 27A OF THE SECURITIES ACT OF 1934, AS AMENDED, AND THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995 (COLLECTIVELY, THE "REFORM ACT"). CERTAIN, BUT NOT NECESSARILY ALL, OF SUCH FORWARD-LOOKING STATEMENTS CAN BE IDENTIFIED BY THE USE OF FORWARD-LOOKING TERMINOLOGY SUCH AS "BELIEVES", "EXPECTS", "MAY", "SHOULD", OR "ANTICIPATES", OR THE NEGATIVE THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY, OR BY DISCUSSIONS OF STRATEGY THAT INVOLVE RISKS AND UNCERTAINTIES. SUCH FORWARD-LOOKING STATEMENTS INVOLVE KNOWN AND UNKNOWN RISKS, UNCERTAINTIES AND OTHER FACTORS WHICH MAY CAUSE THE ACTUAL RESULTS, PERFORMANCE OR ACHIEVEMENTS OF ARRAYIT CORPORATION (THE "COMPANY", TeleChem , Arrayit , "WE", "US" OR "OUR") TO BE MATERIALLY DIFFERENT FROM ANY FUTURE RESULTS, PERFORMANCE OR ACHIEVEMENTS EXPRESSED OR IMPLIED BY SUCH FORWARD-LOOKING STATEMENTS. REFERENCES IN THIS FORM 10-K, UNLESS ANOTHER DATE IS STATED, ARE TO DECEMBER 31, 2010.

Portions of this Form 10-K, including disclosure under Management s Discussion and Analysis or Plan of Operation, contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the Securities Act), Section 21E of the Securities and Exchange Act of 1934, as amended (the Exchange Act), and the Private Securities Litigation Reform Act of 1995, as amended. These forward-looking statements are subject to risks and uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from the results, performance or achievements expressed or implied by the forward-looking statements. You should not unduly rely on these statements. Forward-looking statements involve assumptions and describe our plans, strategies, and expectations. You can generally identify a forward-looking statement by words such as may, will, should, expect, anticipate, estimate, believe, intend, contemplate or project. Factors, risks, and uncertainties that could cause actual results to differ materially from those in the forward-looking statements include, among others,

- our ability to raise capital,
- our ability to provide our products and services at competitive rates,
- our ability to execute our business strategy in a very competitive environment,
- our degree of financial leverage,
- risks associated with our acquiring and integrating companies into our own,
- risks related to market acceptance and demand for our services,
- the impact of competitive services, and
- other risks referenced from time to time in our SEC filings.

With respect to any forward-looking statement that includes a statement of its underlying assumptions or bases, we caution that, while we believe such assumptions or bases to be reasonable and have formed them in good faith, assumed facts or bases almost always vary from actual results, and the differences between assumed facts or bases and actual results can be material depending on the circumstances. When, in any forward-looking statement, we or our management express an expectation or belief as to future results, that expectation or belief is expressed in good faith and is believed to have a reasonable basis, but there can be no assurance that the stated expectation or belief will result or be achieved or accomplished. All subsequent written and oral forward-looking statements attributable to us, or anyone acting on our behalf, are expressly qualified in their entirety by the cautionary statements. Except as required by applicable law, including the securities laws of the United States and/or if the existing disclosure fundamentally or materially changes, we do not undertake any obligations to publicly release any revisions to any forward-looking statements to reflect events or circumstances after the date of this report or to reflect unanticipated events that may occur.

INDUSTRY DATA

In this Form 10-K, we may rely on and refer to information regarding the biotech industry from market research reports, analyst reports and other publicly available information. Although we believe that this information is reliable, we cannot guarantee the accuracy and completeness of this information, and we have not independently verified any of it.

Overview:

Arrayit Corporation (the Company or Arrayit) is a Nevada Corporation, formerly known as TeleChem International, Inc., that entered into the life sciences in 1996. Arrayit is a leading edge developer, manufacturer and marketer of next-generation life science tools and integrated systems for the large scale analysis of genetic variation, biological function and diagnostics. Using Arrayit s proprietary technologies, the Company provides a comprehensive line of products and services that currently serve the sequencing, genotyping, gene expression and protein analysis markets, and the Company expects to enter the market for molecular diagnostics.

Arrayit has earned respect as a leader in the health care and life sciences industries with its proven expertise in three key areas: the development and support of microarray tools and components, custom printing and analysis of

microarrays for research, and the identification and development of diagnostic microarrays and tools for early detection of treatable disease states. As a result, Arrayit has provided tools and services to thousands of the leading genomic research centers, pharmaceutical companies, academic institutions, clinical research organizations, government agencies and biotechnology companies worldwide.

The Company s patented tools and trade secrets provide researchers around the world with the performance, throughput, cost effectiveness and flexibility necessary to perform the billions of genetic tests needed to extract valuable medical information. The Company believes this information will enable researchers to correlate genetic variation and biological function, which will enhance drug discovery, drug development and clinical research, allowing diseases to be detected earlier and permitting better choices of drugs for individual patients.

Effective Thursday, March 19, 2009, the final steps of the business combination with Integrated Media Holdings, Inc. were completed and the Company s common stock began trading on the OTC Bulletin Boards as ARYC . In addition, the Company changed its name to Arrayit Corporation , was reincorporated to Nevada from Delaware, and reverse-split its common stock and Series A Convertible Preferred stock in the ratio of one for thirty shares. The reverse split was only applicable to the Company s Class A Preferred shares and its Common Shares. The Class C Preferred Shares were not affected by the reverse split. The reverse split had no effect upon the convertible debt Oral Agreements which fixed the amount of shares to be issued at 12,478,357 both pre and post split. As the March 19, 2009 Directors Resolution did not change the authorized share capital of the Company, the authorized number of Common Shares was reduced from 100,000,000 to 3,333,333. The Directors approved the reverse split to create a more orderly market for the trading of its Common Shares on the OTC BB.

On August 31, 2009 a majority of the stockholders provided written consent in lieu of a meeting to approve an increase in the authorized common shares of the Company from 3,333,333 to 480,000,000 and an increase in the authorized preferred shares of the Company from 166,667 to 20,000,000. A Certificate of Amendment to the Restated Certificate of Incorporation of the Company was filed on December 18, 2009. The foregoing event was published in a Form DEF 14-C filed on November 18, 2009.

General Business Description, Operating History and Change in Control

Corporate History

Arrayit began as a division of TeleChem International in 1996 with the advent of Dr. Mark Schena s use of microarrays as genetic research tools. Arrayit was able to generate a large customer base in a relatively short time frame by capitalizing on increased Internet access and Arrayit s online business model. Genetic research was advancing at a dramatic pace in the 1990s as more advanced scientific tools became commercially available. Microarray technology, including printing, detection and scanning instrumentation, was a timely addition to the geneticist s repertoire of advanced tools and technology, including automated sequencing, PCR, and expanded computing capability. The sequencing of the genomes of various simple organisms and later, sequencing of the more complex genomes of humans, have led to yet another revolution in genetic discovery: exploring gene function and

variations with regard to disease states and diagnostics. Microarray tools, having undergone FDA-validation in the 2000 s, remain an important component of the new genomic and proteomic industry upon which Arrayit will capitalize.

Overview of the Business

We are a leading edge developer, manufacturer and marketer of next-generation life science tools and integrated systems for the large scale analysis of genetic variation, biological function and diagnostics. Using our proprietary technologies, we provide a comprehensive line of products and services that currently serve the sequencing, genotyping, gene expression and protein analysis markets, and the Company expects to enter the market for molecular diagnostics,

We presently conduct our operations through two wholly owned subsidiaries, one majority owned subsidiary and two majority owned indirect subsidiaries:

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Our TeleChem International, Inc. wholly owned subsidiary.

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Our Arrayit Marketing, Inc. wholly owned subsidiary.

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Our Arrayit Diagnostics, Inc., an 80% majority owned subsidiary.

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Our Arrayit Diagnostics (Ovarian), Inc. a 64% majority owned indirect subsidiary.

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Our Arrayit Diagnostics (Parkinson), Inc. majority indirect subsidiary.

Arrayit Products and Services

In the late 1990 s, Arrayit focused on developing microarray glass substrate slides, kits and reagents using an open platform strategy in order to establish a market niche. Arrayit decided to make products that integrate with components from other vendors, enabling research laboratories to utilize microarray products from multiple vendors, in contrast to the closed platform format of the earliest competitors. Research customers especially enjoy the flexibility and continue to buy Arrayit s products. Arrayit s patented printing technology has become an industry standard for microarray manufacturing, allowing customers to manufacture microarrays of all types including DNA, protein, patient DNA, antibody, antigen, peptide, carbohydrate, and many others. Arrayit s revenues from the printing patent and its own family of printing instrumentation illustrate the Company s success at meeting the unmet needs of the microarray industry. Arrayit now sells both small-scale microarray manufacturing robots (SpotBot®) and high throughput versions (NanoPrint™). The SpotBot® and NanoPrint product lines have been further advanced to

accommodate more stringent requirements in manufacturing protein microarrays. Arrayit also offers personal microarray scanners (SpotLight™) as well as high-end scanning instruments (InnoScan®). As the industry grows, Arrayit is expanding its product line to include fully integrated platforms such as the company's Platinum, Gold, Silver and Bronze Variation Identification Platform™ (VIP) genotyping systems that include cleanroom and laboratory versions. Arrayit is also expanding its pre-printed microarray content to enhance the flagship H25K Whole Human Genome Microarray, which is a premium product for biomarker discovery and drug testing. Additional pre-printed microarrays include H25K subsets as well as a diversity of protein microarrays with specific content, such as PlasmaScan Antibody Microarrays.

Arrayit is expanding its Microarray Services capabilities as well, in connection with increased demand for microarrays of all kinds, and a trend toward outsourcing high end technical manufacturing. With the investment proposed in its business plan, Arrayit will create a variety of microarray based diagnostic tests using Arrayit s patented VIP Healthcare technology and related proprietary approaches. As microarrays move into clinical diagnostics and genetic screening applications, the Company also expects to earn license and royalty fees in these areas.

Arrayit has been a microarray technology market driver for more than a decade. A full microarray product list with descriptions, scientific publications, protocols and pricing is available at http://arrayit.com.

The Microarray Industry

The microarray industry is comprised of four areas: basic research into the function of genes in plants and animals, research on the human genome, development of diagnostics for personalized medicine, and diagnostic screening tools for drug development programs that identify toxicity patterns in patient populations.

The basic research segment constitutes a significant portion of the industry that has grown dramatically since first introduced in the mid-nineties by Arrayit s Dr. Mark Schena. Arrayit currently sells the majority of its products to this segment of the industry. The human genetic research segment constitutes the fastest growing segment, making up the current balance of Arrayit s sales. However, the impact of diagnostics in personalized medicine is expected to be far greater than the above, because of its impact on the very costly healthcare industry. Better patient outcome and lower healthcare cost to medical and insurance providers will provide opportunities in a vast number of disease states as the industry grows. Diagnostic tests will become a part of every individual patient s care plan across the costly spectrum of disease states, including cardiovascular, oncology, neurology, and other genetic diseases that affect large numbers of the population.

Health Care Industry Segment

A 13 year combined effort of scientists around the world and the expenditure of over $2.7 billion led to the completion of the mapping of the entire human genome in 2003. This project identified the complete set of 25,000 genes that are common to all humans. The human genome sequence speeded the study of genes and the variations in the genes that produce unique human characteristics, including pre-disposition to human disease. Because each gene has the potential for numerous variations, the possible combinations number in the billions. As daunting as the task was to map the human genome, the identification of all the variations of these genes and the implications to human health was even more overwhelming. Dr. Mark Schena, the company president, has worked to develop the tools and methods to take on this task using microarray technology. Now laboratories and research facilities around the globe use microarrays daily to isolate and screen genetic variations that identify specific characteristics. With the isolation of these variations, a whole new world of opportunities has been opened.

With the tools and reagents that were developed to create microarrays and analyze the results as a foundation, very specific diagnostic opportunities emerged. The pioneering diagnostic slides, which support screening of one patient at a time, suggested the universally beneficial need to test millions of people for a specific disease and determine if they have the disease undetected, or will develop that disease, or in order to identify what disease is associated with symptoms. However, testing millions of patient samples, one at a time, would overwhelm the testing facilities and be cost prohibitive.

To solve this problem, Dr. Schena developed and patented a method to place up to 100,000 individual patient samples on a single microscope substrate slide and have that slide immersed in a solution that contains the known markers for a specific disease, such as childhood hearing loss, Parkinson s Disease, Alzheimer s Disease, etc. Should any one of those 100,000 patient samples contain the marker for the disease being tested it would produce a red spot, if no disease, a green spot. This procedure also identifies carriers as yellow spots. Because of the sophistication of this patent, one lab could test hundreds of thousands of patient samples a day after receiving a sample of DNA from each patient. It is the only method available to the industry that can accomplish this. Dr. Schena s multi-patient genotyping procedure is protected by the following patents:

US Patent 6,913,879

Australia 2002218740

Europe 1343911

Korea 10-0756015

New Zealand 523560

Singapore 94899

Taiwan I280282

Israel 153848

Other worldwide patents pending

Strategic Relationships and Licensing Arrangements

Arrayit Corporation and Wayne State University recently completed Task 2 of a sponsored research agreement to study ovarian cancer. This research produced three new proteomic markers that may provide additional sensitivity and specificity for the OvaDx® test.

The OvaDx® test for diagnostics use will be marketed and sold upon FDA approval by the company s majority owned subsidiary, Arrayit Diagnostics, Inc. Arrayit Corporation and Arrayit Diagnostics, Inc are exploring strategic partnership opportunities with corporations that have a strong customer base, and a significant sales and marketing presence in the diagnostics industry worldwide.

Arrayit Corporation announced the launch of OvaDx® for research use only at the American Association for Cancer Research Meeting in Orlando, Florida on April 2, 2011. It is a sophisticated microarray-based test that measures the activation of the immune system in response to early stage ovarian tumor cell development. Research studies with OvaDx® indicate high sensitivity and specificity for all types and stages of ovarian cancer. Serum is applied to the OvaDx® microarray to allow binding between proteomic biomarkers in the sample and capture agents on the microarray. The microarray is washed and scanned to produce a digital readout for each serum sample, and the data are quantified and analyzed in software to generate the test results. Pricing for the first 1,000 tests is set at USD 650 per sample. The company's OvaDx® Pre-Symptomatic Ovarian Cancer Screening Test is marketed "for research purposes only" in advance of FDA approval, and is not to be used for any patient management purposes prior to FDA approval. Researchers can use the test to analyze different tumor types and stages, the effectiveness of chemotherapies, biomarker profiles in breast cancer and other epithelial cancers, studies of benign gynecological conditions, the effectiveness of ovarian cancer drugs for treatment and prevention, and to benchmark existing tests including CA-125, OVA1®, and transvaginal ultrasound.

BioSystems International (BSI) is producing antibodies of blood plasma, taken from human sources, for which Arrayit has developed a PlasmaScan™ microarray that potentially has the capability to identify predictors and biomarkers for such difficult to diagnose diseases as Parkinson’s disease and Alzheimer’s disease, among others. Once these biomarkers are identified, a diagnostic slide could then be developed for broad use across the healthcare industry. Arrayit will also benefit from licensing of these antibodies for such downstream applications.

Arrayit has an ongoing collaboration with the Parkinson s Institute to test known Parkinson s Disease (PD) patients blood to identify biomarkers for Parkinson s Disease from the human plasma proteome microarray marketed as PlasmaScan™. Arrayit is also using the H25K Whole Human Genome Microarray to examine PD samples and has identified the world’s first functional mRNA biomarkers for Parkinson’s Disease. An expanded patient study will be used to further validate the PD biomarkers. Arrayit is also working with Stanford University to test known Alzheimer s patients blood to identify biomarkers for Alzheimer s Disease using PlasmaScan and other tools.

Product and Services Categories

While the upcoming diagnostic opportunities will be the pay back for years of research and development, they are only possible because of the development of the microarray equipment and consumables by Arrayit.

Patented Printing Technology

Arrayit manufactures the world s most widely used microarray printing technology consisting of Professional, 946, Stealth and ChipMaker® pins and printheads. Arrayit s patented printing technology allows the high-speed manufacture of DNA, protein, antibody, lipid, carbohydrate and many other types of microarrays for research and diagnostic applications including gene expression, genotyping, protein profiling and

many more.

Instrumentation

Instrumentation including NanoPrint™ and SpotBot® provide for automated microarray printing. NanoPrint™ allows high-end manufacturing, whereas SpotBot® systems are the only personal microarrayers in the industry that enable affordable desktop use.

Other instruments include SpotLight™ CCD fluorescence scanners, SpotWare-® colorimetric scanners, InnoScan® laser scanners, TrayMix™ Hybridization Stations, high speed centrifuges, air jets, vacuum products. Laboratory tools and bioinformatics computers complete the instrumentation line which are all designed to facilitate the quality and speed of microarray research.

Consumables

Arrayit manufactures and provides the microarray industry with variety of consumables, including glass substrates and slides, reagents, solutions, kits and clean room supplies.

Arrayit Super Microarray Substrates have been adopted by major Life Science companies and are used industry wide. They are polished atomically flat glass printing surfaces with proprietary coupling chemistry that afford high signal intensities and low background noise for premium quality microarray experimentation.

Arrayit buffers and solutions are optimized to increase the quality of microarray manufacturing, processing, and use. Purification kits provide both a high yield and superior purity. Applications include: DNA microarrays, fluorescent microarray purification, sequencing and others. Arrayit kits utilize proprietary binding membranes and purification chemistries for optimal performance.

Healthcare Platforms

Arrayit s patented Healthcare technology, the Variation Identification Platform (VIP), allows diagnostic tests to be performed by depositing as many as 100,000 patient samples onto a single microarray. VIP manufacturing and clean room technology platforms are also sold to customers who license the technology from Arrayit. VIP platforms enable the manufacture of extremely high-quality microarrays with superior precision and accuracy. These microarrays containing 100,000 individual features allow the simultaneous genotyping of 100,000 different patients in a single test.

Arrayit Opportunity in Diagnostics and Personalized Medicine

With the completion of the human genome sequencing project, genetic research is increasing its focus on identifying the variations of the specific genes in the genome. These variations are what define individual characteristics, including disease states or a statistical propensity for disease. It is now also possible to identify protein markers or

biomarkers in the blood stream that provide early warning signs for diseases such as cancer. Arrayit technology allows the analysis and identification of both DNA sequence variants and protein bloodstream biomarkers. The implications of this capability are far-reaching and are impacting not only the research community, but also the individual patients and the medical and insurance providers. Diagnostic tests that detect diseases very early in their progression will provide options for earlier treatments that may improve the patient s quality of life and prognosis by delaying or preventing disease progression or even death. Medical and insurance providers will incur major cost savings by avoiding costly late stage disease treatments.

We intend to pursue opportunities to acquire businesses that increase our disease diagnostic capability or expand our geographic reach. We also intend to consider acquiring manufacturers of other highly engineered and customized ancillary or complementary products that will further our penetration of markets and customers served. We favor candidates that have competencies and business characteristics similar to our own, and those that we expect will benefit from some of the major trends affecting our industry.

Strategic Distributorships

The Company utilizes more than 40 international distributors in South America, Europe, Japan, the Middle East, South Africa, China, Singapore, Korea, India, Taiwan, Israel and other locations world-wide. The Company has generally chosen one representative in each geographical area, and has worked closely with that organization to promote the Company s product line. These global distributors purchase directly from Arrayit for resale on net 30 day terms, and represent approximately 48% of the Company s 2010 revenues. These foreign receivables are insured through Euler Hermes ACI.

Competition within the Microarray Research and Development Industry

Arrayit competes with large and small, public and private companies. The industry has been historically dominated by Affymetrix which achieved strong market penetration by being the first public company to commercialize and promote microarray applications. A more recent entry to the market, Illumina, has taken significant market share from Affymetrix. However, both competitors face mid to long term scientific and technological challenges because they are limited by what they can deposit onto a microarray--DNA. Arrayit s patented printing technology can deposit any kind of molecule into a microarray, including DNA, proteins, antibodies, diagnostic elements and other compounds. These next generation microarrays represent the largest growth opportunity in the industry. Arrayit has a long-term advantage in its unique line of personal and high throughput microarray printers, highest sensitivity microarray scanners, top quality consumables, patented diagnostic methods, collaborative corporate culture, and competitive pricing.

The following companies compete with Arrayit in the research and development portion of the microarray market:

Name and Location	Trading Symbol	Price per Common Share	Market Capitalization
Agilent Technologies, Inc., Santa Clara, California	NYSE: A	$44.99	$15.53B

Agilent provides bio-analytical and electronic solutions to the communications, electronics, life sciences and chemical analysis industries. The microarray division is a small portion of their total business. Agilent s process places spots in a microarray by means of an ink jet technology and is limited to DNA microarrays.

Affymetrix, Inc., Santa Clara, California	NasdaqGS: AFFX	$5.73	404.19M

Affymetrix provides consumables and systems for genetic analysis in life sciences. Their process creates a microarray by means of photolithography and is limited to DNA microarrays.

Illumina, Inc., San Diego, California	NasdaqGS: ILMN	$68.74	$8.77B

Illumina provides a line of products and services to serve the sequencing, genotyping and gene expression markets. Their process places chemically reacted beads into a microarray format, and is limited to DNA microarrays.

(1) Share price and market cap values as of April 11, 2011

Advertising, Marketing and Sales

Thanks to the successful efforts of the Company s sales and marketing team, Arrayit is the most highly recognized independent brand name in the microarray industry. This was accomplished through visibility in major broadcast television news media, full page advertisements in top scientific journals, trade shows and workshops, vendor fairs, direct mail campaigns, feature articles in major trade publications and e-mail newsletters. All advertising and marketing efforts drive traffic to the Arrayit.com website and web based store resulting in sales. The Arrayit.com web site, which regularly receives more than 1,500 unique visitors per day and 40,000 visitors per month and over 1 million hits per month, is considered by many to be the portal of the microarray industry.

The Company s sales strategy has been successful by providing personalized sales and support. The inside sales force is currently comprised of three persons. External sales are accomplished domestically and internationally by Arrayit s more than 40 distributors. The Company plans to hire additional experienced sales professionals with microarray, diagnostics and pharmaceutical contacts who will capitalize on the company s powerful microarray technologies. The company anticipates a sales force of approximately ten within three years.

Strategic Distributorships

The Company utilizes more than 40 international distributors in South America, Europe, Japan, the Middle East, South Africa, China, Singapore, Korea, India, Taiwan, Israel and other locations world-wide. The Company has generally chosen one representative in each geographical area, and has worked closely with that organization to promote the Company s product line. These global distributors purchase directly from Arrayit for resale on net 30 day terms, and represent approximately 48% of the Company s 2010 revenues. These foreign receivables are insured through Euler Hermes ACI.

Facilities

Arrayit s corporate offices and research facilities are located at 524 East Weddell Drive, Sunnyvale, California 94089. The corporate headquarters covers 8,280 square feet which in addition to the executive offices, shipping and receiving, include a microarray manufacturing cleanroom demonstration facility, two (2) microarray manufacturing clean rooms, a substrate manufacturing clean room, preparation and packing facilities, and quality control and quality assurance work stations. The base rent is $13,248.00 per month plus a monthly operating expense charge of $1,738.80. The lease expires on November 30, 2012.

Our Subsidiary, Arrayit Diagnostics, Inc operates from commercial offices located at 12000 Westheimer Avenue, Suite 340, Houston, TX, 77077.

Our internet website address is http://www.arrayit.com

Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports are available free of charge on the SEC s website, www.sec.gov.

Management believes these facilities are suitable and adequate for its current operations.

Regulatory Matters

We and our customers are subject to various government regulations, and we may incur significant expenses to comply with, and experience delays in our product commercialization as a result of, these regulations.

The FDA must approve certain in-vitro diagnostic products before they can be marketed in the U.S. Certain in-vitro diagnostic products must also be approved by the regulatory agencies of foreign governments or jurisdictions before the product can be sold outside the U.S. Commercialization of our and our collaborative partners in-vitro diagnostic products outside of the research environment may depend upon successful completion of clinical trials. Clinical development is a long, expensive and uncertain process and we do not know whether we, or any of our collaborative partners, will be permitted to undertake clinical trials of any potential in-vitro diagnostic products. It may take us or our collaborative partners many years to complete any such testing, and failure can occur at any stage. Delays or rejections of potential products may be encountered based on changes in regulatory policy for product approval during the period of product development and regulatory agency review. Moreover, if and when our projects reach clinical trials, we or our collaborative partners may decide to discontinue development of any or all of these projects at any time for commercial, scientific or other reasons. Any of the foregoing matters could have a material adverse effect on our business, financial condition and results of operations.

Many of our products are labeled for research only. Even where a product is exempted from FDA clearance or approval, the FDA may impose restrictions as to the types of customers to which we can market and sell our products. Such restrictions may materially and adversely affect our business, financial condition and results of operations.

The FDA, the U.S. Department of Health and Human Services and foreign government regulators are increasingly focused on genetic analysis tools, including the use of arrays that are labeled for research use only by cytogenetics labs, including labs certified under the Clinical Laboratory Improvement Amendments (CLIA). We cannot predict the extent of the FDA s future efforts in regulation and policies with respect to the sale and use of arrays for the development of assays by CLIA laboratories, which are referred to as laboratory developed tests (LDTs). If new regulations restrict our customers development of LDTs using our products labeled for research use only, or if we otherwise are required to obtain FDA premarket clearance or approval prior to commercializing these products, our ability to generate revenue from the sale of our products may be delayed or otherwise adversely affected. Moreover, our failure to comply with governmental rules and regulations related to our products could cause us to incur significant adverse publicity, or subject us to investigations and notices of non-compliance or lead to fines or restrictions upon our ability to sell our products.

Medical device laws and regulations are also in effect in many countries, ranging from comprehensive device approval requirements to requests for product data or certifications. The number and scope of these requirements are increasing. We may not be able to obtain regulatory approvals in such countries or may incur significant costs in obtaining or maintaining our foreign regulatory approvals. In addition, the export by us of certain of our products which have not yet been cleared for domestic commercial distribution may be subject to FDA or other export restrictions.

We have agreements relating to the sale of our products to government entities and, as a result, we are subject to various statutes and regulations that apply to companies doing business with the government. A failure to comply with these regulations might result in suspension of these contracts or administrative penalties, and could have a material adverse effect on our ability to compete for future government grants, contracts and programs.

Healthcare reform and restrictions on reimbursements

We are currently collaborating with our partners to develop diagnostic and therapeutic products. The ability of our collaborators to commercialize such products may depend, in part, on the extent to which reimbursement for the cost of these products will be available under U.S. and foreign regulations that govern reimbursement for clinical testing services by government authorities, private health insurers and other organizations. In the U.S., third-party payer price resistance, the trend towards managed health care and legislative proposals to reform health care or reduce government insurance programs could reduce prices for health care products and services adversely affect the profits of our customers and collaborative partners and reduce our future royalties.

Handling of hazardous materials and other regulations governing environmental safety.

Our operations are subject to complex and stringent environmental, health, safety and other governmental laws and regulations that both public officials and private individuals may seek to enforce. Our activities that are subject to these regulations include, among other things, our use of hazardous materials and the generation, transportation and storage of waste. We could discover that we or an acquired business is not in material compliance. Existing laws and regulations may also be revised or reinterpreted, or new laws and regulations may become applicable to us, whether retroactively or prospectively, that may have a negative effect on our business and results of operations. It is also impossible to eliminate completely the risk of accidental environmental contamination or injury to individuals. In such an event, we could be liable for any damages that result, which could adversely affect our business.

Employees

At April 15, 2011, we had 9 full time employees, and agreements with four consultants. We had no part-time employees. None of our employees are covered by a collective bargaining agreement with a union. We consider our relationship with our employees to be good.

Comment Letters Issued by the SEC

During 2010, the SEC issued a comment letter relating to its previously filed Forms 10K. We have provided answers to this comment letter.

ITEM 1A. RISK FACTORS

Our business faces many risks. The risks described below may not be the only risks we face. Additional risks that we do not yet know of, or that we currently think are immaterial, may also negatively impact our business operations or financial results. If any of the events or circumstances described in this section occur, our business, financial condition or results of operations could be negatively affected to a significant extent. Our securities are highly speculative and should only be purchased by persons who can afford to lose their entire investment in our Company. The Company's business is subject to many risk factors, including the following:

Risks Related to the Growth of Our Business

If we do not continually develop and commercialize new or enhanced products and services, our business may not grow.

Our success depends in large part on our continual, timely development and commercialization of new or enhanced products and services that address evolving market requirements and are attractive to customers. The genetic analysis tools market is characterized by rapid and significant technological changes, frequent new product introductions and enhancements, evolving industry standards and changing customer needs. Standardization of tools and systems for genetic research is still ongoing and we cannot assure you that our products will emerge as the standard for genetic research. Other companies may introduce new technologies, techniques, products or services that render our products or services obsolete or uneconomical. If we do not appropriately innovate and invest in new technologies, then our technologies will become dated and our customers could move to new technologies offered by our competitors.

As a result, we are continually looking to develop, license or acquire new or enhanced technologies, products and services to further broaden and deepen our offerings. Some of the factors affecting market acceptance of our products

and services include:

- availability, quality and price as compared to competitive products and services;
- the functionality of new and existing products and services;
- the timing of introduction of our products and services as compared to competitive products and services;
- the existence of product defects;
- scientists' and customers' opinions of the utility of our products and services and our ability to incorporate their feedback into future products and services;
- citation of our products in published research; and
- general trends in life science research and life science informatics software development.

Our new or enhanced technologies, products or services may not be accepted by customers in our target markets. For example, once we have developed or obtained a new technology, we may fail to successfully commercialize new products and services based on that technology, particularly to the extent that our new products and services compete with established technologies or the products and services of more established competitors. Risks relating to product adoptions include 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.

Our growth depends in part on our ability to acquire new technologies, products and services through additional acquisitions, which may absorb significant resources and may not be successful.

As part of our strategy to develop and identify new technologies, products and services, we have made and may continue to make acquisitions. Our integration of the operations of acquired businesses requires significant efforts, including the coordination of information technologies, research and development, sales and marketing, operations, manufacturing and finance. These efforts result in additional expenses and divert significant amounts of management s time from other projects. Our failure to manage successfully and coordinate the growth of the combined company could also have an adverse impact on our business. In addition, there is no guarantee that some of the businesses we acquire will become profitable or remain so. If our acquisitions do not meet our initial expectations, we may record impairment charges, such as those recorded in 2008.

Factors that will affect the success of our acquisitions include:

- our ability to retain key employees of the acquired company;
- the performance of the acquired business, technology, product or service;
- our ability to integrate operations, financial and other systems;
- the ability of the combined company to achieve synergies among its constituent companies, such as increasing sales of the combined company's products and services, achieving expected cost savings and effectively combining technologies to develop new products and services;
- any disruption in order fulfillment due to integration processes and therefore loss of sales;
- the presence or absence of adequate internal controls and/or significant fraud in the financial systems of acquired companies;
- any decrease in customer and distributor loyalty and product orders caused by dissatisfaction with the combined companies' product lines and sales and marketing practices, including price increases; and
- our assumption of known contingent liabilities that are realized, known liabilities that prove greater than anticipated, or unknown liabilities that come to light, to the extent that the realization of any of these liabilities increases our expenses or adversely affects our business or financial position.

Emerging market opportunities in molecular diagnostics may not develop as quickly as we expect and we depend on the efforts of our partners to be successful.

The clinical applications of our technologies for diagnosing and enabling informed disease management options in the treatment of disease is an emerging market opportunity in molecular diagnostics. At this time, we cannot be certain that molecular diagnostic markets will develop as quickly as we expect. Although we believe that there will be clinical applications of our technologies that will be utilized for diagnosing and enabling informed disease management options in the treatment of disease, there can be no certainty of the technical or commercial success our technologies will achieve in such markets.

Our success in the molecular diagnostics market depends to a large extent on our collaborative relationships and the ability of our collaborative partners to achieve regulatory approval for such products in the United States and in overseas markets, and successfully market and sell products using our technologies.

Patent disputes can be costly to prosecute and defend and adverse judgments could result in damage awards, increased royalties and other similar payments and decreased sales.

Patent positions can be highly uncertain and patent disputes in the medical industry are not unusual. An adverse result in a patent dispute involving our patents, or the patents of our collaborators, may lead to a determination by a court that the patent is not infringed, is invalid, and/or is unenforceable. Such an adverse determination could lead to our loss of market exclusivity. An adverse result in a patent dispute alleging that we have infringed patents held by a third party may lead to a determination by a court that the patent is infringed, valid, and enforceable. Such an adverse determination may preclude the commercialization of our products and/or may lead to significant financial damages for past and ongoing infringement. Due to the uncertainty surrounding patent litigation, parties may settle patent disputes by obtaining a license under mutually agreeable terms in order to decrease risk of an interruption in manufacturing and/or marketing of its products.

The potential for litigation regarding our intellectual property rights always exists and litigation may be initiated by third parties attempting to abridge our rights. Even if we are ultimately successful in a particular dispute, we may incur substantial costs in defending its patents and other intellectual property rights.

Risks Related to Our Sales

We face significant competition, and our failure to compete effectively could adversely affect our sales and results of operations.

We compete with companies that develop, manufacture and market genetic analysis tools for the life science and clinical healthcare markets. We face significant competition as our competitors develop new, improved or more economical products and services and as new companies enter the market with new and innovative technologies.

The market for molecular diagnostics products and services is highly competitive, has high barriers of entry, and has several other large companies with significant market share. For example, companies such as Affymetrix, Illumina, Agilent Technologies and Life Technologies have products for genetic analysis that are directly competitive with certain of our products. We also face competition from established diagnostic companies such as Beckman Coulter, Becton Dickinson, bioMérieux, Celera Diagnostics, Johnson & Johnson and Roche Diagnostics, which have made strategic commitments to diagnostics, have financial and other resources to invest in new technologies, and have substantial intellectual property portfolios. They also have substantial experience in new product development, regulatory expertise,

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.

Consolidation trends in both our market and that of our customers have increased competition.

There has been a trend toward industry consolidation in our markets for the past several years. We expect this trend toward industry consolidation to continue as companies attempt to strengthen or hold their market positions in an evolving industry and as companies are acquired or are unable to continue operations. We believe that industry consolidation may result in stronger competitors that are better able to compete as sole-source vendors for customers. This could lead to more variability in operating results and could harm our business.

Additionally, there has been a trend toward consolidation in many of the customer markets we sell to, in particular the pharmaceutical industry. Consolidation in our customer markets results in increased competition for important market segments and fewer available accounts, and larger consolidated customers may be able to exert increased pricing pressure on companies in our market.

Reduction or delay in research and development budgets and government funding may adversely impact our sales.

We expect that our revenues in the foreseeable future will be derived primarily from products and services provided to a relatively small number of academic, governmental and other research institutions, as well as pharmaceutical and biotechnology companies. Our operating results may fluctuate substantially due to reductions and delays in research and development expenditures by these customers.

Factors that could affect the spending levels of our customers include:

- weakness in the global economy and changing market conditions that affect our customers;
- changes in the extent to which the pharmaceutical industry may use genetic information and genetic testing as a methodology for drug discovery and development;
- changes in government programs that provide funding to companies and research institutions;
- changes in the regulatory environment affecting life science companies and life science research;
- impact of consolidation within the pharmaceutical industry; and
- cost reduction initiatives of customers.

Government funding of research and development is subject to the political process, which is inherently unpredictable. In 2009, U.S. government funding for life science research increased, due in part to the enactment of the American Recovery and Reinvestment Act of 2009, which provided over $10 billion in research funding to the National Institutes of Health (NIH) through September 2010. Any shift away from the funding of life science research and development or delays surrounding the approval of government budget proposals may cause our customers to delay or forgo purchases of our products and services. Moreover, in the short term, our customers may delay or reduce their purchases of our products as they wait to learn whether, and to what extent, they will receive stimulus funding. Additionally, if our customers are unable to obtain stimulus funding they may reduce their research and development budgets, resulting in a decrease in demand for our products. A reduction or delay in demand will reduce our revenues and adversely affect our profitability.

If we are unable to maintain our relationships with collaborative partners, we may have difficulty developing and selling our products and services.

We believe that our success in penetrating our target markets depends in part on our ability to develop and maintain collaborative relationships with key companies as well as with key academic researchers. Relying on our collaborative relationships is risky to our future success because:

- our partners may develop technologies or components competitive with our products and services;
- our existing collaborations may preclude us from entering into additional future arrangements;
- our partners may not obtain regulatory approvals necessary to continue the collaborations in a timely manner;
- some of our agreements may terminate prematurely due to disagreements between us and our partners;
- our partners may not devote sufficient resources to the development and sale of our products and services;
- our partners may be unable to provide the resources required for us to progress in the collaboration on a timely basis;
- our collaborations may be unsuccessful; or
- some of our agreements have expired and we may not be able to negotiate future collaborative arrangements on acceptable terms.

The size and structure of our current sales, marketing and technical support organizations may limit our ability to sell our products and services.

Although we have invested significant resources to expand our direct sales force and our technical and support staff, we may not be able to establish a global sales, marketing or technical support organization that is sufficient to sell, market or support our products globally. To assist our sales and support activities, we have entered into distribution agreements through certain distributors, principally in markets outside of North America and Europe. These and other third parties on whom we rely for sales, marketing and technical support may decide to develop and sell competitive products or otherwise become our competitors, which could harm our business.

Risks Related to the Manufacturing of Our Products

We rely on third parties whose operations are outside our control.

We rely on arrangements with third-party shippers and carriers such as independent shipping companies for timely delivery of our products to our customers. As a result, we may be subject to carrier disruptions and increased costs due to factors that are beyond our control, including labor strikes, inclement weather, natural disasters and rapidly increasing fuel costs. If the services of any of these third parties become unsatisfactory, we may experience delays in meeting our customers product demands and we may not be able to find a suitable replacement on a timely basis or on commercially reasonable terms. Any failure to deliver products to our customers in a timely and accurate manner may damage our reputation and could cause us to lose customers.

We also utilize third party distributors to sell, install and service certain of our products. While we are selective in whom we choose to represent us, it is difficult for us to ensure that our distributors and manufacturer s representatives consistently act in accordance with the standards we set for them. To the extent any of our end-customers have negative experiences with any of our distributors; it could reflect poorly on us and damage our reputation, thereby negatively impacting our financial results.

We may need to adjust our manufacturing capacity based on business requirements or improvements made to our technological capabilities and there are risks associated with such adjustment.

If demand for our products is reduced or if we implement technologies that increase the density or yields of our microarrays, our manufacturing capacity could be under-utilized and some of our long-lived assets, including facilities and equipment, may be impaired, which would increase our expenses. In addition, factory planning decisions may shorten the useful lives of long-lived assets including facilities and equipment, and cause us to accelerate depreciation. These changes in demand for our products, and changes in our customers product needs, could have a variety of negative effects on our competitive position and our financial results, and, in certain cases, may reduce our revenue, increase our costs, lower our gross margin percentage or require us to recognize impairments of our assets. In addition, if demand for our products is reduced or we fail to accurately forecast demand, we could be required to write down inventory since certain of our products have a limited shelf life, which would have a negative impact on our gross margin.

We may lose customers or sales if we are unable to meet customer demand for our products on a timely and cost-effective basis, or if we are unable to ensure the proper performance and quality of our products.

We produce our products in an innovative and complicated manufacturing process which has the potential for significant variability in manufacturing yields. We have encountered and may in the future encounter difficulties in manufacturing our products and, due to the complexity of our products and our manufacturing process, we may experience delays in the manufacture of our products or fail to ensure their proper performance or quality. As we develop new and enhanced products, we must be able to resolve in a timely, cost-effective manner manufacturing issues that may arise from time to time.

We rely on internal quality control procedures to verify our manufacturing processes. Due to the complexity of our products and manufacturing process, however, it is possible that products that do not meet all of our performance specifications may not be identified before they are shipped. If our products do not consistently meet our customers performance expectations, demand for our products will decline. In addition, we do not maintain any backup manufacturing capabilities for the production of our products. Any interruption in our ability to continue operations at our existing manufacturing facilities could delay our ability to develop or sell our products, which could result in lost revenue and seriously harm our business, financial condition and results of operations.

Risks Related to Our Operations

We have had significant operating losses expect to continue to incur net losses for the near term.

Although we were formed in 1993, we have been unable to consistently operate profitably. As of December 31, 2010, we had an accumulated deficit of approximately $24,345,983. We have reported net losses of approximately $3,439,358 and $8,974,979 for the fiscal years ended December 31, 2010 and 2009, respectively. Unless our sales increase substantially in the near future, we anticipate that we will continue to incur net losses in the near term, and we may never be able to achieve profitability. In order to achieve profitable operations we need to significantly increase our revenues from the sales of product and licensing fees. We cannot be certain that our business will ever be successful or that we will generate significant revenues and become profitable.

We may have substantial future cash requirements but no assured financing source to meet such requirements.

If we are able to generate funds from financing actitivies, we will have sufficient cash and cash equivalents, to support our projected operating needs for the next fiscal year. However, with limited revenues from sales of our products and services, our business plan that calls for us to continue to improve our products, create new products, and more aggressively market our existing products will require us to obtain additional working capital. Our future capital requirements will depend on many factors, including continued progress in product enhancements and new product development programs, the magnitude of these programs, the time and costs involved in completion of technological, manufacturing and market requirements, and the cost of finalizing licensing agreements to produce licensing revenues. We do not know whether additional financing will be available when needed, or on terms favorable to us or our stockholders particularly in light of current economic conditions which have significantly adversely affected the availability of credit, and other sources of capital. We may raise necessary funds through public or private equity offerings, debt financings or additional corporate collaboration and licensing arrangements. To the extent we raise additional capital by issuing equity securities; our stockholders will experience further dilution. If we raise funds through debt financings, we may become subject to restrictive covenants. To the extent that we raise additional funds through collaboration and licensing arrangements, we may be required to relinquish some rights to our technologies or products, or grant licenses on terms that are not favorable to us.

Our operating results may vary significantly from quarter to quarter.

Our quarterly results may be materially and adversely affected by:

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the timing and volume of work under new agreements;

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general economic conditions;

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the spending patterns of customers;

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customer orders received;

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losses experienced in our operations not otherwise covered by insurance;

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a change in the demand or production of our products caused by severe weather conditions;

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convertible debt and warrant grants categorized as derivative financial instruments require changes in fair value be recorded in the consolidated statement of operations;

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a change in the mix of our customers, contracts and business;

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increases in design and manufacturing costs; and

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the ability of customers to pay their invoices owed to us and disagreements with customers related to product performance on delivery.

Accordingly, our operating results in any particular quarter may not be indicative of the results that you can expect for any other quarter or for an entire year.

We plan to engage in acquisitions and joint ventures, and may encounter unexpected difficulties identifying, pricing or integrating those businesses.

We seek to grow, in part, through strategic acquisitions that are intended to complement or expand our business, and expect to continue to do so in the future. The success of this strategy will depend on our ability to identify, price, finance and complete these transactions or arrangements. Success will also depend on our ability to integrate the businesses acquired in these transactions. We may encounter unexpected difficulties in completing and integrating acquisitions with our existing operations, and in managing strategic investments. Furthermore, we may not realize the degree, or timing, of benefits we anticipated when we first entered into a transaction. Any of the foregoing could adversely affect our business and results of operations.

We may be unsuccessful at generating internal growth.

Our ability to generate internal growth will be affected by, among other factors, our ability to attract new customers, increase the number or size of orders received by existing customers, hire and retain employees and increase volume utilizing our existing facilities. In addition, our customers may reduce the number or size of their orders. Many of the factors affecting our ability to generate internal growth may be beyond our control, and we cannot be certain that our strategies will be successful or that we will be able to generate cash flow sufficient to fund our operations and to support internal growth. If we are unsuccessful, we may not be able to achieve internal growth, expand our operations or grow our business.

The departure of key personnel could disrupt our business.

We depend on the continued efforts of Dr. Mark Schena, our president, and other senior management. We cannot be certain that any individual will continue in such capacity for any particular period of time. The loss of key personnel, or the inability to hire and retain qualified employees, could negatively impact our ability to manage our business.

Our business requires skilled labor, and we may be unable to attract and retain qualified employees.

Our ability to maintain our productivity and profitability will be limited by our ability to employ, train and retain skilled personnel necessary to meet our requirements. We may experience shortages of qualified personnel. We cannot be certain that we will be able to maintain an adequate skilled labor force necessary to operate efficiently and to support our growth strategy or that our labor expenses will not increase as a result of a shortage in the supply of skilled personnel. Labor shortages or increased labor costs could impair our ability to maintain our business or grow our revenues, and may adversely impact our profitability.

We carry insurance against many potential liabilities, and our risk management program may leave us exposed to unidentified or unanticipated risks.

Although we maintain insurance policies with respect to our related exposures, these policies contain deductibles and limits of coverage. We estimate our liabilities for known claims and unpaid claims and expenses based on information available as well as projections for claims incurred but not reported. However, insurance liabilities are difficult to estimate due to various factors. If any of our insurance policies or programs are not effective in mitigating our risks, we may incur losses that are not covered by our insurance policies or that exceed our accruals or that exceed our coverage limits and could adversely impact our consolidated results of operations, cash flows and financial position.

Future litigation could impact our financial results and condition.

Our business, results of operations and financial condition could be affected by significant future litigation or claims adverse to us. Types of potential litigation cases include: product liability, contract, employment-related, labor relations, personal injury or property damage, intellectual property, stockholder claims and claims arising from any injury or damage to persons, property or the environment from hazardous substances used, generated or disposed of in the conduct of our business.

An adverse ruling by the U.S. Internal Revenue Service could create significant liability.

Several of the persons, including consultants and executive officers, who provide services to us are treated as independent contractors or receive below market loans instead of salaries or wages. If the I.R.S examines our prior years tax returns and determines that one or more of such persons were employees, the resulting liability for withholding and payroll taxes could be significant.

Market disruptions caused by the worldwide financial crisis could affect our ability to meet our liquidity needs at reasonable cost and our ability to meet long-term commitments, which could adversely affect our financial condition and results of operations.

We rely on our credit facility with our primary lender, amongst other avenues, to satisfy our liquidity needs. Further disruptions in the credit markets or further deterioration of the banking industry s financial condition, may discourage or prevent our primary lender and other lenders from meeting their existing lending commitments, extending the terms of such commitments or agreeing to new commitments. Market disruptions may also limit our ability to issue debt securities in the capital markets. We can provide no assurances that our primary lender or any other lenders we may have will meet their existing commitments or that we will be able to access the credit markets in the future on terms acceptable to us or at all.

Longer term disruptions in the capital and credit markets as a result of uncertainty, reduced financing alternatives or failures of significant financial institutions could adversely affect our access to the liquidity needed for our business. Any disruption could require us to take measures to conserve cash until the market stabilizes or until alternative financing can be arranged. Such measures could include deferring capital expenditures and reducing other discretionary expenditures.

Continued market disruptions could cause a broad economic downturn that may lead to increased incidence of customers failure to pay for services delivered, which could adversely affect our financial condition, results of operations and cash flow.

Continued capital market disruptions could result in increased costs related to variable rate debt. As a result, continuation of market disruptions could increase our interest expense and adversely impact our results of operations.

Disruption in the capital markets and its actual or perceived effects on particular businesses and the greater economy also adversely affects the value of the investments held within our pension plans. Significant declines in the value of the investments held within our pension plans may require us to increase contributions to those plans in order to meet future funding requirements if the actual asset returns do not recover these declines in value in the foreseeable future. These trends may also adversely impact our results of operations, net cash flows and financial positions, including our stockholders equity.

Restrictive loan covenants may impact our ability to operate our business and to pursue our business strategies, and our failure to comply with these covenants could result in an acceleration of our indebtedness.

Our credit facility with our primary lender contains certain restrictive covenants. The majority of the liquidity derived from our credit facility is based on availability determined by a borrowing base. Specifically, the availability of credit is dependent upon our eligible receivables, inventory and certain liens. We may not be able to maintain adequate levels of eligible assets to support our required liquidity.

Due to the international nature of our business, political or economic changes or other factors could harm our business.

A significant amount of our revenue is currently generated from sales outside the United States. Although such transactions are primarily denominated in U.S. dollars, our future revenue, gross margin, expenses and financial condition are still affected by such factors as changes in foreign currency exchange rates; unexpected changes in, or impositions of, legislative or regulatory requirements, including export and trade barriers and taxes; longer payment cycles and greater difficulty in accounts receivable collection.

We also are subject to general geopolitical risks in connection with international operations, such as political, social and economic instability, potential hostilities, epidemics and changes in diplomatic and trade relationships. We cannot

assure investors that one or more of the foregoing factors will not have a material adverse effect on our business, financial condition and operating results or require us to modify our current business practices.

Our effective tax rate may vary significantly.

Our operations are subject to income and transaction taxes in the United States and in multiple foreign jurisdictions. Estimates and judgments are required in determining our worldwide provision for income taxes. Some of these estimates are based on interpretations of existing tax laws or regulations. The ultimate amount of tax liability may be uncertain as a result.

Changes in overall levels and the geographic mix of pretax earnings may adversely impact our effective tax rate. Certain jurisdictions have lower tax rates, and the amount of earnings in these jurisdictions may fluctuate. If we do not have profitable operations in these jurisdictions, our effective tax rate could be adversely impacted. Changes in tax laws and regulatory requirements in the countries in which we operate could have a material impact on our tax provision. To the extent that we are unable to continue to reinvest a substantial portion of our profits in our foreign operations, we may be subject to effective income tax rate increases in the future. Tax authorities may challenge the allocation of profits between our subsidiaries and we may not prevail in any such challenge. If we were not to prevail, we could be subject to higher tax rates or double tax.

Estimates are required in determining any valuation allowance to be recorded against our net deferred tax assets. Changes in the amount of valuation allowance required may significantly impact our financial results of operations.

Risks Related to Government Regulation and Litigation

We and our customers are subject to various government regulations, and we may incur significant expenses to comply with, and experience delays in our product commercialization as a result of, these regulations.

The FDA must approve certain in-vitro diagnostic products before they can be marketed in the United States. Certain in-vitro diagnostic products must also be approved by the regulatory agencies of foreign governments or jurisdictions before the product can be sold outside the United States. Commercialization of our and our collaborative partners in-vitro diagnostic products outside of the research environment may depend upon successful completion of clinical trials. Clinical development is a long, expensive and uncertain process and we do not know whether we, or any of our collaborative partners, will be permitted to undertake clinical trials of any potential in-vitro diagnostic products. It may take us or our collaborative partners many years to complete any such testing, and failure can occur at any stage. Delays or rejections of potential products may be encountered based on changes in regulatory policy for product

approval during the period of product development and regulatory agency review. Moreover, if and when our projects reach clinical trials, we, or our collaborative partners, may decide to discontinue development of any or all of these projects at any time for commercial, scientific or other reasons. Any of the foregoing matters could have a material adverse effect on our business, financial condition and results of operations.

Many of our products are labeled for research only. Even when a product is exempted from FDA clearance or approval, the FDA may impose restrictions as to the types of customers to which we can market and sell our products. Such restrictions may materially and adversely affect our business, financial condition and results of operations.

The FDA, the U.S. Department of Health and Human Services and foreign government regulators are increasingly focused on genetic analysis tools, including the use of arrays that are labeled for research use only by cytogenetics labs, including labs certified under the Clinical Laboratory Improvement Amendments (CLIA). We cannot predict the extent of the FDA s future efforts in regulation and policies with respect to the sale and use of arrays for the development of assays by CLIA laboratories, which are referred to as laboratory developed tests (LDTs). If new regulations restrict our customers development of LDTs using our products labeled for research use only, or if we otherwise are required to obtain FDA premarket clearance or approval prior to commercializing these products, our ability to generate revenue from the sale of our products may be delayed or otherwise adversely affected. Moreover, our failure to comply with governmental rules and regulations related to our products could cause us to incur significant adverse publicity, subject us to investigations and notices of non-compliance or lead to fines or restrictions upon our ability to sell our products.

Medical device laws and regulations are also in effect in many countries, ranging from comprehensive device approval requirements to requests for product data or certifications. The number and scope of these requirements are increasing. We may not be able to obtain regulatory approvals in such countries or may incur significant costs in obtaining or maintaining our foreign regulatory approvals. In addition, the export by us of certain of our products which have not yet been cleared for domestic commercial distribution may be subject to FDA or other export restrictions.

We have agreements relating to the sale of our products to government entities and, as a result, we are subject to various statutes and regulations that apply to companies doing business with the government. A failure to comply with these regulations might result in suspension of these contracts or administrative penalties, and could have a material adverse effect on our ability to compete for future government grants, contracts and programs.

Healthcare reform and restrictions on reimbursements may limit our returns on molecular diagnostic products that we may develop with our collaborators.

We are currently collaborating with our partners to develop diagnostic and therapeutic products. The ability of our collaborators to commercialize such products may depend, in part, on the extent to which reimbursement for the cost of these products will be available under U.S. and foreign regulations that govern reimbursement for clinical testing services by government authorities, private health insurers and other organizations. In the United States, third-party payer price resistance, the trend towards managed health care and legislative proposals to reform health care or government insurance programs could reduce prices for health care products and services, adversely affecting the profits of our customers and collaborative partners and reduce our future royalties.

Risks related to handling of hazardous materials and other regulations governing environmental safety.

Our operations are subject to complex and stringent environmental, health, safety and other governmental laws and regulations that both public officials and private individuals may seek to enforce. Our activities that are subject to these regulations include, among other things, our use of hazardous and materials and the generation, transportation and storage of waste. We could discover that we or an acquired business is not in material compliance. Existing laws and regulations may also be revised or reinterpreted, or new laws and regulations may become applicable to us, whether retroactively or prospectively, that may have a negative effect on our business and results of operations. It is also impossible to eliminate completely the risk of accidental environmental contamination or injury to individuals. In such an event, we could be liable for any damages that result, which could adversely affect 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 human diagnostic and therapeutic products and we may be subjected to such claims. We may seek to acquire additional insurance for clinical or product 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 have a serious adverse effect on our business, financial condition and results of operations.

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 may call for limits on or regulation of the use of genetic testing or prohibit testing for genetic predisposition to certain conditions, particularly for those that have no known cure. Similarly, such concerns may lead individuals to refuse to use genetics tests even if permissible. Any of these scenarios could reduce the potential markets for our molecular diagnostic products, which could have a material adverse effect on our business, financial condition and results of operations.

Risks Related to Our Intellectual Property

We may be unable to effectively protect or enforce our intellectual property, which could harm our competitive position.

Maintaining a strong patent position is critical to our business. Patent law relating to the scope of claims in the technology fields in which we operate is uncertain, so we cannot be assured the patent rights we have or may obtain will be valuable. Others have filed, and in the future are likely to file, patent applications that are similar or identical to ours or those of our licensors. To determine the priority of inventions, we may have to participate in interference proceedings declared by the United States Patent and Trademark Office that could result in substantial costs in legal fees and could substantially affect the scope of our patent protection. We cannot be assured our patent applications will have priority over those filed by others. Also, our intellectual property may be subject to significant administrative and litigation proceedings such as opposition proceedings against our patents in Europe, Asia and other jurisdictions.

Legal actions to enforce our patent rights can be expensive and may involve the diversion of significant management time. In addition, these legal actions could be unsuccessful and could also result in the invalidation of our patents or a finding that they are unenforceable. We may or may not choose to pursue litigation or interferences against those that have infringed on our patents, or used them without authorization, due to the associated expense and time commitment of monitoring these activities. If we fail to protect or to enforce our intellectual property rights successfully, our competitive position could suffer, which could harm our results of operations.

In addition to patent protection, we also rely upon copyright and trade secret protection, as well as non-disclosure agreements with our employees, consultants and third-parties, to protect our confidential and proprietary information. Such measures may not provide adequate protection for our proprietary information.

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 impact our stock price.

Third parties have asserted and may in the future assert that we are employing their proprietary technology without authorization. We are currently engaged in litigation with third parties who allege that we have infringed their intellectual property rights. See Item 8 . Financial Statements and Supplementary Data Note 14 ~. Commitments and Contingencies for further information. In addition, we are aware of third-party patents that may relate to our technology. We routinely receive notices claiming infringement from third parties as well as invitations to take licenses under third party patents.

As we enter new markets, we expect that competitors will claim that our products infringe their intellectual property rights as part of business strategies designed to impede our successful entry into those markets. In addition, third parties may have obtained, and may in the future obtain, patents allowing them to claim that the use of our technologies infringes these patents. We could incur substantial costs and divert the attention of our management and technical personnel in defending ourselves against any of these claims. Any adverse ruling or perception of an adverse ruling in defending ourselves against these claims could have a material adverse impact on our stock price, which may be disproportionate to the actual import of the ruling itself. Furthermore, parties making claims against us may be able to obtain injunctive or other relief, which could block our ability to develop, commercialize and sell 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 selling certain products. In addition, we may be unable to obtain these licenses at a reasonable cost, if at all. We could therefore incur substantial costs related to royalty payments for licenses obtained from third parties, which could negatively affect our gross margins. In addition, 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 maintain profitability.

Risks Relating to Our Organization

Our certificate of incorporation authorizes our board to create new series of preferred stock without further approval by our stockholders, which could adversely affect the rights of the holders of our common stock.

Our board of directors has the authority to fix and determine the relative rights and preferences of preferred stock. Our board of directors also 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 our 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 our common stock, which could decrease the relative voting power of our common stock or result in dilution to our existing stockholders.

Your ability to influence corporate decisions is limited because our executive officers and directors own a controlling percentage of our common stock.

A majority of our voting securities are owned by senior officers and directors who are all members of the same family. Therefore, they, with influence from other members of the family, control all matters submitted to our stockholders for approval, including the election of directors and approval of any merger, consolidation or sale of all or substantially all of our assets. This concentration of voting power could delay or prevent an acquisition of our company on terms that other stockholders may desire. In addition, as the interests of the controlling family and our minority stockholders may not always be the same, this large concentration of voting power may lead to stockholder votes that are inconsistent with your best interests or the best interest of us as a whole.

Limitations of Liability; Indemnification

Our Articles of Incorporation and Bylaws contain provisions that limit the liability of directors for monetary damages and provides for indemnification of officers and directors under certain circumstances. Such provisions may discourage stockholders from bringing a lawsuit against directors for breaches of fiduciary duty and may also have the effect of reducing the likelihood of derivative litigation against directors and officers even though such action, if successful, might otherwise have benefited our stockholders. In addition, a stockholder s investment in the company may be adversely affected to the extent that costs of settlement and damage awards against our officers or directors are paid by the company pursuant to such provisions.

If we fail to develop and maintain an effective system of internal controls, we may not be able to accurately report our financial results or prevent fraud. As a result, our current and potential stockholders could lose confidence in our financial reports, which could harm our business and the trading price of our common stock.

Effective internal controls are necessary for us to provide reliable financial reports and effectively prevent fraud. Section 404 of the Sarbanes-Oxley Act of 2002 requires us to evaluate and report on our internal controls over financial reporting and may in the future require our independent registered public accounting firm to annually attest to our evaluation, as well as issue their own opinion on our internal controls over financial reporting. The process of implementing and maintaining proper internal controls and complying with Section 404 is expensive and time consuming. We cannot be certain that we can attract and retain a sufficient number of independent directors that includes independent members of our audit committee and accomplish the other measures that ensure we will maintain adequate controls over our financial processes and reporting in the future. Furthermore, if we are able to rapidly grow our business, the internal controls that we will need become more complex, and significantly more resources and independent officers and directors will be required to ensure our internal controls remain effective. Failure to implement required controls, or difficulties encountered in their implementation, could harm our operating results or cause us to fail to meet our reporting obligations. If we or our auditors discover a material weakness in our internal controls, the disclosure of that fact, even if the weakness is quickly remedied, could diminish investors confidence in our financial statements and harm our stock price. In addition, non-compliance with Section 404 could subject us to a variety of administrative sanctions, including the suspension of trading, ineligibility for future listing on NYSE Amex or another national securities exchange, and the inability of registered broker-dealers to make a market in our common stock, which may reduce our stock price.

Because we became 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 us becoming public 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 public or private offerings on our behalf.

Our Growth Will Place Significant Strains On Our Resources.

The Company's growth, if any, is expected to place a significant strain on the Company's managerial, operational and financial resources. Furthermore, assuming the Company receives additional contracts, and obtains additional partners, it will be required to manage multiple relationships with other third parties. These requirements will be exacerbated in the event of further growth of the Company or in the number of its contracts, partnerships and employees. There can be no assurance that the Company's systems, procedures or controls will be adequate to support the Company's operations or that the Company will be able to achieve the rapid execution necessary to successfully offer its services and continue its business plan. The Company's future operating results, if any, will also depend on its ability to add additional personnel commensurate with the growth of its business, if any. If the Company is unable to manage growth effectively, the Company's business, results of operations and financial condition will be adversely affected.

Risks Related to Our Common Stock

The market price of our common stock is likely to be highly volatile and could fluctuate widely in response to various factors, many of which are beyond our control, including the following:

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technological innovations or new products and services by us or our competitors;

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additions or departures of key personnel;

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limited availability of freely-tradable unrestricted shares of our common stock to satisfy purchase orders and demand;

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our ability to execute our business plan;

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operating results that fall below expectations;

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loss of any strategic relationship;

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industry developments;

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we have issued warrants and options that may have a dilutive effect for our stockholders

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economic and other external factors; and

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period-to-period fluctuations in our financial results.

In addition, the securities markets have from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies. These market fluctuations may also significantly affect the market price of our common stock.

There may be a limited market for our securities and we may fail to qualify for a NYSE Amex or other listing.

Although we plan on applying for listing of our common stock on the NYSE Amex or a different national exchange once we meet the qualifications, there can be no assurance that our initial listing application will be granted, when the required listing criteria will be met or when, or if, our application will be granted. Thereafter, there can be no assurance that trading of our common stock on such market will be sustained or desirable. At the present time, we do not qualify for certain of the initial listing requirements of the NYSE Amex or other national exchanges. In the event that our common stock fails to qualify for initial or continued inclusion, our common stock could thereafter only be quoted on the OTC Bulletin Board or in what are commonly referred to as the pink sheets. Under such circumstances, you may find it more difficult to dispose of, or to obtain accurate quotations, for our common stock, and our common stock would become substantially less attractive to certain purchasers, such as financial institutions, hedge funds, and large investors.

Offers or availability for sale of a substantial number of shares of our common stock may cause the price of our common stock to decline.

If our stockholders sell substantial amounts of our common stock in the public market, including shares covered by this Private Placement Memorandum forms a part, upon the expiration of any regulatory holding period, under Rule 144, or issued upon the exercise of outstanding options or warrants, could create a circumstance commonly referred to as an overhang and in anticipation of which the market price of our common stock could fall. The existence of an overhang, whether or not sales have occurred or are occurring, also could make more difficult our ability to raise additional financing through the sale of equity or equity-related securities in the future at a time and price that we deem reasonable or appropriate.

We do not expect to pay dividends in the future. As a result, any return on investment may be limited to the value of our common stock.

We do not anticipate paying cash dividends on our common stock in the foreseeable future. The payment of dividends on our common stock will depend on our earnings, financial condition and other business and economic factors as our board of directors may consider relevant. If we do not pay dividends, our common stock may be less valuable because a return on your investment will only occur if our stock price appreciates.

Our quarterly results have historically fluctuated significantly and may continue to do so. Failure to meet financial expectations may disappoint securities analysts or investors and result in a decline in our stock price.

Our revenues and operating results may fluctuate significantly due in part to factors that are beyond our control and which we cannot predict. The timing of our customers orders may fluctuate from quarter to quarter. Historically, we have experienced customer ordering patterns for instrumentation and consumables where the majority of the shipments occur in the last month of the quarter. These ordering patterns may limit management s ability to accurately forecast our future revenues or product mix. Additionally, license revenue may also be unpredictable and may fluctuate due to the timing of payments of non-recurring licensing fees. Because our expenses are largely fixed in the short to medium term, any material shortfall in revenues may cause us to experience material losses.

Because of this difficulty in predicting future performance, our operating results may fall below our own expectations and the expectations of securities analysts or investors in some future quarter or quarters. Our failure in the past to meet these expectations has adversely affected the market price of our common stock and may continue to do so.

In addition to factors that affect the spending levels of our customers described above, additional factors could cause our operating results to fluctuate, including:

- competition;
- our inability to produce products in sufficient quantities and with appropriate quality;
- the frequency of experiments conducted by our customers;
- our customers' inventory of products;
- the receipt of relatively large orders with short lead times; and
- our customers' expectations as to how long it takes us to fill future orders.

We Have A Limited Operating History As A Public Company Upon Which You Can Assess Our Prospects And We Are Subject To The Risks Associated With Any New Public Company.

As a result of our short history of operations as a public company, there is little historical information regarding our operations upon which you can base your investment decision. In addition, we are subject to all of the business risks and uncertainties associated with any newly public business enterprise. Additionally, our management has limited experience operating a public company. As such, our Company may not be able to continue to meet its continued filing requirements and may be late in its periodic filings, which late filings may cause the Company to be delisted from the Over-The-Counter Bulletin Board. If this were to happen, any investment in the Company could become devalued or worthless.

We Incur Significant Costs As A Result Of Operating As A Fully Reporting Company In Connection With Section 404 Of The Sarbanes Oxley Act, And Our Management Is Required To Devote Substantial Time To Compliance Initiatives.

We anticipate incurring significant legal, accounting and other expenses in connection with our status as a fully reporting public company. The Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act") and new rules subsequently implemented by the SEC have imposed various new requirements on public companies, including requiring changes in corporate governance practices. As such, our management and other personnel will need to devote a substantial amount of time to these new compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. In addition, the Sarbanes-Oxley Act requires, among other things, that we maintain effective internal controls for financial reporting and disclosure of controls and procedures. In particular, for fiscal year 2010, Section 404 will require us to obtain a report from our independent registered public accounting firm attesting to the assessment made by management. Our testing, or the subsequent testing by our independent registered public accounting firm, may reveal deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses. Our compliance with Section 404 will require that we incur substantial accounting expense and expend significant management efforts. We currently do not have an internal audit group, and we may need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge. Moreover, if we are not able to comply with the requirements of Section 404 in a timely manner, or if we or our independent registered public accounting firm identifies deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses, the market price of our stock could decline, and we could be subject to sanctions or investigations by the SEC or other regulatory authorities, which would require additional financial and management resources.

There Is Currently Only A Limited Market For Our Common Stock, And The Market For Our Common Stock May Continue To Be Illiquid, Sporadic And Volatile.

There is currently only a limited market for our common stock, and as such, we anticipate that such market will be illiquid, sporadic and subject to wide fluctuations in response to several factors moving forward, including, but not

limited to:

(1) actual or anticipated variations in our results of operations;

(2) our ability or inability to generate new revenues;

(3) the number of shares in our public float;

(4) increased competition;

(5) conditions and trends in the market for biotech developers

Furthermore, because our common stock is traded on the Over-The-Counter Bulletin Board, our stock price may be impacted by factors that are unrelated or disproportionate to our operating performance. These market fluctuations, as well as general economic, political and market conditions, such as recessions, interest rates or international currency fluctuations may adversely affect the market price of our common stock. Additionally, at present, we have a limited number of shares in our public float, and as a result, there could be extreme fluctuations in the price of our common stock. Further, due to the limited volume of our shares which trade and our limited public float, we believe that our stock prices (bid, ask and closing prices) are entirely arbitrary, are not related to the actual value of the Company, and do not reflect the actual value of our common stock (and in fact reflect a value that is much higher than the actual value of our common stock). Shareholders and potential investors in our common stock should exercise caution before making an investment in the Company, and should not rely on the publicly quoted or traded stock prices in determining our common stock value, but should instead determine the value of our common stock based on the information contained in the Company's public reports, industry information, and those business valuation methods commonly used to value private companies.

Investors May Face Significant Restrictions On The Resale Of Our Common Stock Due To Federal Regulations Of Penny Stocks.

Our common stock will be subject to the requirements of Rule 15(g) 9, promulgated under the Securities Exchange Act as long as the price of our common stock is below $5.00 per share. Under such rule, broker-dealers who recommend low-priced securities to persons other than established customers and accredited investors must satisfy special sales practice requirements, including a requirement that they make an individualized written suitability determination for the purchaser and receive the purchaser's consent prior to the transaction. The Securities Enforcement Remedies and Penny Stock Reform Act of 1990, also requires additional disclosure in connection with any trades involving a stock defined as a penny stock.

Generally, the Commission defines a penny stock as any equity security not traded on an exchange or quoted on NASDAQ that has a market price of less than $5.00 per share. The required penny stock disclosures include the delivery, prior to any transaction, of a disclosure schedule explaining the penny stock market and the risks associated with it. Such requirements could severely limit the market liquidity of the securities and the ability of purchasers to

sell their securities in the secondary market.

In addition, various state securities laws impose restrictions on transferring "penny stocks" and as a result, investors in the common stock may have their ability to sell their shares of the common stock impaired.

Item 1B . UNRESOLVED STAFF COMMENTS

During 2010, the SEC issued a comment letter relating to its previously filed Forms 10K. We have provided answers to both the original comment letter, and to subsequent additional comment letters received during 2011.

ITEM 2. PROPERTIES

Arrayit s corporate offices and research facilities are located at 524 East Weddell Drive, Sunnyvale, California 94089. The corporate headquarters covers 8,280 square feet which in addition to the executive offices, shipping and receiving, include a microarray manufacturing cleanroom demonstration facility, two (2) microarray manufacturing clean rooms, a substrate manufacturing clean room, preparation and packing facilities, and quality control and quality assurance work stations. The base rent is $13,248.00 per month plus a monthly operating expense charge of $1,738.80. The lease expires on November 30, 2012.

Our Subsidiary, Arrayit Diagnostics, Inc., operates from commercial offices located at 12000 Westheimer Avenue, Suite 340, Houston, TX, 77077.

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ITEM 3. LEGAL PROCEEDINGS

Pediatrix Screening, Inc., et al. V. TeleChem International, Inc.

The controversy at issue arose from a failed grant collaboration between Pediatrix and TeleChem, involving TeleChem s proprietary microarray technology and subsequent agreement by the parties to commercialize this microarray technology through the formation of a joint corporation. Pediatrix brought a lawsuit in the United States District Court for the Western District of Pennsylvania alleging multiple claims for breach of contract in connection with both the grant collaboration and Pre-Incorporation Agreement. TeleChem counterclaimed alleging breach of the Pre-Incorporation Agreement, as well as fraudulent misrepresentation and trade secret misappropriation, *inter alia,* stemming from the failed grant collaboration and subsequent Pre-Incorporation Agreement.

Civil Action number 01-2226 between TeleChem International, Inc., Pediatrix Screening, Inc. and Pediatrix Screening LP went to jury trial in the United States District Court in the Western District of Pennsylvania in the summer of 2007. On August 11, 2007, the jury awarded TeleChem $5,000,000 in damages for Pediatrix's breach of contract, fraudulent misrepresentation, and punitive damages. The jury awarded Pediatrix $1,085,001 for TeleChem's breach of contract. Pediatrix put $5,000,000 in bond, and submitted an appeal to the Third Circuit Court of Appeals to request that the damages award to TeleChem be reduced. Oral argument in the appeal was heard on December 15, 2009 by a panel of three judges in the Third Circuit Court of Appeals in Philadelphia, PA.

On April 20, 2010, the Third Circuit Court of Appeals rendered its judgment on that appeal that the Judgment entered August 16, 2007 is reversed in part, with respect to the judgment in favor of TeleChem on its counterclaim of misrepresentation and the award of damages. The Appeal Court ordered a new trial on TeleChem s counterclaim for fraudulent misrepresentation and damages. The judgments on all other claims were affirmed. The Company has not yet determined a course of action.

There are no other material legal proceedings, although we may, from time to time, be party to certain legal proceedings and other various claims and lawsuits in the normal course of our business, which, in the opinion of management, are not material to our business or financial condition.

We are not aware, of any governmental authority contemplating any proceeding to which we are a party or to which any of our properties is subject.

ITEM 4. RESERVED

PART II

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

Market Information and Holders

Transfer Agent

Our transfer agent and warrant agent is Standard Registrar and Transfer Co., Inc. 12528 South 1840 East Street, Draper, Utah 84020

Price Range of Common Stock

Our common stock now trades publicly on the OTC Bulletin Board under the symbol "ARYC". Previous to March 19, 2009, our common stock traded under the symbol "IMHI". The OTCBB is a regulated quotation service that displays real-time quotes, last-sale prices and volume information in over-the-counter equity securities. The OTCBB securities are traded by a community of market makers that enter quotes and trade reports. This market is extremely limited and any prices quoted are not a reliable indication of the value of our common stock.

The following table sets forth the quarterly high and low bid prices per share of our common stock by the OTCBB during the last two fiscal years. The quotes represent inter-dealer quotations, without adjustment for retail mark-up, markdown or commission and may not represent actual transactions. The trading volume of our securities fluctuates and may be limited during certain periods. As a result of these volume fluctuations, the liquidity of an investment in our securities may be adversely affected.

QUARTER ENDED		HIGH	LOW
January 1, 2011	April 15, 2011	$ 0.45	$ 1.13
December 31, 2010		$ 0.35	$ 0.16
September 30, 2010		$ 0.73	$ 0.19
June 30, 2010		$ 1.05	$ 0.51
March 31, 2010		$ 1.65	$ 0.84

December 31, 2009	$	1.90	$	0.40
September 30, 2009	$	0.80	$	0.52
June 30, 2009	$	3.00	$	0.40
March 31, 2009	$	2.40	$	0.07

As of April 14, 2011, we had 26,127,767, shares of common stock issued and outstanding held by approximately 377 shareholders of record based on information provided by our transfer agent. The foregoing number of record holders does not include any persons who hold their stock in street name. In addition we had 22,034 shares of Series A Convertible Preferred Stock issued and outstanding and 91,573 shares of Series C Convertible Preferred Stock issued and outstanding.

Dividends

We have never declared or paid any cash dividends on our common stock, and we do not anticipate paying any dividends in the foreseeable future. We intend to devote any earnings to fund the operations and the development of our business.

Common Stock

Holders of shares of common stock are entitled to one vote per share on each matter submitted to a vote of shareholders. In the event of liquidation, holders of common stock are entitled to share pro rata in the distribution of assets remaining after payment of liabilities, if any. Holders of common stock have no cumulative voting rights, and, accordingly, the holders of a majority of the outstanding shares have the ability to elect all of the directors. Holders of common stock have no pre-emptive or other rights to subscribe for shares. Holders of common stock are entitled to such dividends as may be declared by the Board out of funds legally available therefore. The outstanding shares of common stock are validly issued, fully paid and non-assessable.

RECENT SALES OF UNREGISTERED SECURITIES

On October 1, 2010 we issued 110,005 unregistered common shares upon conversion of 314 Series C Preferred Shares.

On November 19, 2010 we issued 75,000 unregistered common shares as compensation for $13,875 services by consultants to the Company. The Company relied upon the exemption under Section 4(2) of the Securities Act.

On November 24, 2010 we issued 300,000 unregistered common shares as compensation for $57,000 services by consultants to the Company. The Company relied upon the exemption under Section 4(2) of the Securities Act.

December 31, 2010 we issued 588,425 unregistered common shares upon conversion of outstanding debt of $141,022 owed to the Company. The Company relied upon the exemption under Section 4(2) of the Securities Act.

ITEM 6. SELECTED FINANCIAL DATA

Not required.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINACIAL CONDITION AND RESULTS OF OPERATIONS

Critical Accounting Policies

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires the Company to make estimates and assumptions that affect amounts reported in the accompanying consolidated financial statements and related footnotes. These estimates and assumptions are evaluated on an on-going basis based on historical developments, market conditions, industry trends and other information the Company believes to be reasonable under the circumstances. There can be no assurance that actual results will conform to the Company s estimates and assumptions, and that reported results of operations will not be materially adversely affected by the need to make accounting adjustments to reflect changes in these estimates and assumptions from time to time. The following policies are those the Company believes to be the most sensitive to estimates and judgments. The Company s significant accounting policies are more fully described in Note 2 to our consolidated financial statements.

Use of Estimates

The Company s significant estimates include an allowance for doubtful accounts and accrued expenses. These estimates and assumptions affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. While the Company believes that such estimates are fair when considered in conjunction with the financial statements taken as a whole, the actual amounts of such estimates, when known, will vary from these estimates. If actual results significantly differ from the Company s estimates, the Company s financial condition and results of operations could be materially impacted.

Revenue recognition:

Overview

The Company recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable, and collectability is reasonably assured. In instances where final acceptance of the product or system is required, revenue is deferred until all the acceptance criteria have been met.

Product Sales

Product sales include sales of microarrays, reagents and related instrumentation. Microarray, reagent and instrumentation revenues are recognized when earned, which is generally upon shipment and transfer of title to the customer and fulfilment of any significant post-delivery obligations. Accruals are provided for anticipated warranty expenses at the time the associated revenue is recognized.

Services

Services revenue is comprised of equipment service revenue; revenue from custom microarray design fees; and scientific services revenue, which includes associated consumables.

Diagnostic Revenue

Revenue from medical testing and scientific services is recognized upon shipment of the reported results.

Other Income

We recognize interest income as earned.

Patent Costs

Costs incurred with registering and defending patent technology are charged to expense as incurred.

Derivative Instruments

Derivatives are recorded on the balance sheet at fair value. These derivatives, including embedded derivatives, are separately valued and accounted for on our balance sheet.

Accounting guidance related to Accounting for derivative financial instruments indexed to and potentially settled in, a company's own stock, requires freestanding contracts that are settled in a company's own stock, including warrants to purchase common stock, to be designated as an equity instrument, asset or a liability. Under these provisions, a contract designated as an asset or a liability must be carried at fair value on a company s balance sheet, with any changes in fair value recorded in the company s results of operations. A contract designated as an equity instrument must be included within equity, and no fair value adjustments are required.

Following this guidance, we determined the conversion feature of our SOV Cap notes, Senior Secured Convertible Notes (SSCN) and the warrants associated with the SSCN notes should be treated as separate derivative liabilities on our balance sheet under current liabilities. Unrealized changes in the value of these derivatives are recorded in the consolidated statement of operations as a gain or loss on derivative liabilities. Fair values of the derivative liability associated with the conversion features and warrants are determined using a Black-Scholes Model.

Non-controlling Interest:

We account for the non-controlling interest in its two subsidiaries under ASC 810-10-45-16, Non-controlling Interest in a Subsidiary. This standard defines a non-controlling interest, previously called a minority interest, as the portion of equity in a subsidiary not attributable, directly or indirectly, to a parent. The standard requires, among other items, that a non-controlling interest be included in the consolidated statement of financial position within equity separate from the parent's equity; consolidated net income to be reported at amounts inclusive of both the parent's and non-controlling interest s shares and, separately, the amounts of consolidated net income attributable to the parent and non-controlling interest all on the consolidated statement of operations; and if a subsidiary is deconsolidated, any retained non-controlling equity investment in the former subsidiary be measured at fair value and a gain or loss be recognized in net income based on such fair value. Additionally, the standard defines a non-controlling interest as a financial instrument issued by a subsidiary that is classified as equity in the subsidiary's financial statements. A financial instrument issued by a subsidiary that is classified as a liability in the subsidiary's financial statements based on the guidance in other standards is not a controlling interest because it is not an ownership interest.

Royalty interests that entitle the holder to participate in future earnings and are not repayable are classified as non-controlling interests.

Nature and Classification of the Non-Controlling Interest in the Consolidated Financial Statements:

Arrayit Corporation is the controlling interest of the affiliated group, since it maintains an investment in each of the operating facilities. Arrayit Corporation, has an 80% ownership investment in Arrayit Diagnostics, Inc., and an indirect 64% interest in Arrayit Diagnostics (Ovarian), Inc., and Arrayit Diagnostics (Parkinsons), Inc., as of December 31, 2010.

A non controlling interest is the portion of the equity in a subsidiary not attributable, directly or indirectly, to a parent. A non controlling interest, minority interest, is the ownership held by owners other than the consolidating parent. The non controlling interest is reported in the consolidated statement of financial position separately from the parent's equity, within the equity section of the balance sheet. The minority interest in the current year s income (loss) is segregated from the earnings (loss) attributable to the controlling parent. Minority ownership equity interest in the consolidating subsidiaries is increased by equity contributions and proportionate share of the subsidiaries earnings and is reduced by dividends, distributions and proportionate share of the subsidiaries incurred losses.

PLAN OF OPERATIONS FOR THE NEXT TWELVE MONTHS

During fiscal 2011, we plan to continue investing to support our long-term growth initiatives. We plan to partner with other alliances, enter new markets and further expand our presence in existing markets. Should we not be successful in raising funds, we will curtail the development of our diagnostics business and concentrate our efforts on the sale of our tools and consumables.

DEBT OBLIGATIONS

The Company has $1,226,084 (2009 - $1,033,587) of debt. The debt is comprised of a long term bank loan of $173,706 (2009 - $261,126) which is being liquidated by monthly installments of $8,572 over a 60 month term; advances from creditors of $39,293 (2009 - $42,711); a past due loan from minority shareholders of $200,000 (2009 - $nil); and $707,001 (2009- $729,750) is due to the former TeleChem shareholders and their families, who have

deferred repayment of their loans until the $173,706 has been paid in full. The company s subsidiary, Arrayit Diagnostics, Inc. has $106,084 (2009-$nil) of debt. To date the Company has been able to meet the servicing of the debt from cash flow generated by operations.

COMPARISON OF OPERATING RESULTS

RESULTS OF OPERATIONS FOR THE YEAR ENDED DECEMBER 31, 2010 COMPARED TO THE YEAR ENDED DECEMBER 31, 2009

For the year ended December 31, 2010, revenues were $3,076,967, compared to $3,993,737 for the year ended December 31, 2009, a decrease of $916,770 or approximately 23% from the prior period. To a large extent the drop in sales was the direct result of curtailed funding for many of our institutional customers.

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Cost of sales decreased by $1,437,767 or 47% to $1,635,689 for the year ended December 31, 2010, compared to $3,073,456 for the year ended December 31, 2009.The decrease in cost of sales arose both because we changed our product mix from consumables to tools which have a higher profit margin as well as our ability to purchase raw materials at lower prices than we were privously able to obtain.

Gross profit increased by $520,997 or 57% to $1,441,278 for the year ended December 31, 2010 compared to $920,281 for the year ended December 31, 2009. The gross profit percentage increased from 23% in 2009 to our more traditional gross profit percentage of 47% in 2010.

Recurring, in the normal course of business general and administrative expenses were $1,566,712 and $1,293,753, for the years ended December 31, 2010 and December 31, 2009, respectively, constituting an increase of $272,959 or approximately 17% from the prior period. The increase reflected higher utilities costs, increased marketing activities and additional consultants. General and administrative expenses for 2009 included the fair market value of 4,878,598 shares issued during the year to employees and consultants, resulting in an expense of $5,124,352 recorded as part of general and administrative expenses.

During 2010 we expended $404,262 (2009 - $335,100) on Research and Development. These expenditures were primarily focussed on our new diagnostic testing area.

We have undertaken an initiative to reduce our outstanding debt to our suppliers. During 2010 we were able to renegotiate some debt resulting in a gain on extinquishment of debt during 2010 of $33,359.

Pursuant to the Oral Agreements we fixed the number of shares to be issued upon conversion of the debt covered by said agreements. As we did not have sufficient authorized share capital to allow for the conversion of the debt, at the time we entered into the Oral Agreements we had to record a derivative. On March 13, 2009, the date of Debt Modification, the Company recorded a derivative liability of $20,996,593 as a result of insufficient authorized shares to satisfy the debt settlement in accordance with accounting standards for derivative instruments and hedging activities and revalued the liability by recording a loss on extinquishment of debt of $12,834,898. See Note 7 in section Notes to Condensed Consolidated Financial Statement).

The gain on derivative liability of $10,134,238 during 2009, was primarily due to the decrease in the OTCBB market value of the Company s shares from $0.52 used to determine the derivative liability at the end of the March 31, 2009 (the Company s first quarter) and the $0.29 used to determine the derivative liability at the end of September 30, 2009, the Company s last reporting period, prior to December 11, 2009 increase in authorized share capital, which eliminated the conditions giving rise to the derivative liability. There was no corresponding amount during 2010.

Legal expense of for the year ended December 31, 2010 was $585,871 compared to $203,507 for the year ended December 31, 2009. The 2010 increase reflected the costs associated with defending the appeal of the Pediatrix law suit, and general advice on dealing with our creditiors.

Interest expense of $376,184 for the year ended December 31, 2010 rose by $97,687 from the $278,497 interest cost for the year ended December 31, 2009. The increase was the result, of the high cost of private capital, and rising rates of judgment interest.

The net loss attributable to the noncontrolling interest is recognition of the outside shareholdings in our subsidiary, Arrayit Diagnostics, Inc.

The Company had net loss attributable to common shareholders of $3,248,242 for the year ended December 31, 2010, compared to net loss of $8,908,071 for the year ended December 31, 2009, a decrease in net loss of $5,659,829 or 64% from the prior period.

LIQUIDITY AND CAPITAL RESOURCES

We had total assets of $559,046 and total liabilities of $8,468,009 as of December 31, 2010. We had total negative working capital of $7,881,675 as of December 31, 2010.

We had accounts payable and accrued liabilities of $6,436,439 at December 31, 2010 compared to $5,320,239 at December 31, 2009.

	2010	2009	Payment Terms
	31-Dec-10	31-Dec-09	
ACCOUNTS PAYABLE			
Normal course of business	$ 1,281,280	$ 1,328,852	30 to 60 days
Legal fees incurred pertaining to law suits	3,140,913	2,889,677	Due on demand, although the Company does not anticipate making payment until it obtains new financing
Total Accounts Payable	4,422,193	4,218,528	
ACCRUED LIABILITIES			
Accrued salaries & wages	1,257,980	780,833	Due on demand, although the Company does not anticipate making payment until it obtains new financing
Judgement interest	328,303	309,719	Due on demand, although the Company does not anticipate making payment until it obtains new financing
Other	427,964	11,159	30 to 60 days
Total Accrued Liabilites	2,014,247	1,101,711	
TOTAL	$ 6,436,439	$ 5,320,239	

We had net cash used in operating activities of $219,748.

We had $232,613 of net cash provided by financing activities for the year ended December 31, 2010 which included $170,718 of proceeds from loans payable, $51,200 from the exercise of options and $124,282 proceeds from the issuance of warrants, net of $113,587 repayment of notes payable.

We relied on our officers and directors and our shareholders to supplement our operations or provide us with financing. If we are unable to increase revenues from operations, to raise additional capital from conventional sources and/or additional sales of stock in the future, we may be forced to curtail or cease our operations. In the future, we may be required to seek additional capital by selling debt or equity securities. The sale of additional equity or debt securities, if accomplished, may result in dilution to our then shareholders. We provide no assurance that financing will be available in amounts or on terms acceptable to us, or at all.

In the long term, the Company will need significant amounts of net cash to fund its research and development, to provide working capital and to repay its debt. Failure to raise new capital will severely impact the Company s ability to complete its business plan as more fully described above.

REVERSE SPLIT

Effective Thursday, March 19, 2009, the final steps of the business combination with Integrated Media Holdings, Inc. were completed and the Company s common stock began trading on the OTC Bulletin Boards as ARYC . In addition, the Company changed its name to Arrayit Corporation , was reincorporated to Nevada from Delaware, and reverse-split its common stock and Series A Convertible Preferred stock in the ratio of one for thirty shares. The reverse split was only applicable to the Company s Class A Preferred shares and its Common Shares. The Class C Preferred Shares were not affected by the reverse split. As the March 19, 2009 Directors Resolution did not change the authorized share capital of the Company, the authorized number of Common Shares was reduced from 100,000,000 to 3,333,333. The Directors approved the reverse split to create a more orderly market for the trading of its Common Shares on the OTC BB. On December 31, 2009, we increased out authorized Common Share capital to 480,000,000 shares and our authorized Preferred Share capital to 20,000,000 shares.

The effects of the Reverse Stock Split have been reflected retroactively in the accompanying consolidated financial statements and notes thereto for all periods presented.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

ARRAYIT CORPORATION

CONSOLIDATED FINANCIAL STATEMENTS

For the Years Ended December 31, 2010 and 2009

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ARRAYIT CORPORATION

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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REPORT OF INDEPENDENT REGISTERED CERTIFIED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of

Arrayit Corporation.

Sunnyvale, California

We have audited the accompanying consolidated balance sheets of Arrayit Corporation and subsidiaries as of December 31, 2010 and 2009, and the related consolidated statements of operations, changes in stockholders equity (deficit), and cash flows for the years then ended. These consolidated financial statements are the responsibility of the Company s management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. The Company 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 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 audits provide a reasonable basis for our opinion.

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

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 3 to the financial statements, the Company has suffered recurring losses and has working capital and stockholder deficits. Those conditions raise substantial doubt about its ability to continue as a going concern. Management s plans regarding those matters are also described in Note 3. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ Moss, Krusick and Associates, LLP

Winter Park, Florida

April 15, 2011

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ARRAYIT CORPORATION

CONSOLIDATED BALANCE SHEETS

As at December 31, 2010 and 2009

	2010	2009
ASSETS		
Current Assets		
Cash	$ 10,833	$ -
Accounts receivable, net of allowance for doubtful accounts of $133,000 and $100,000, respectively	187,242	71,944
Inventory	301,936	241,436
Prepaid expenses	-	12,500
Total current assets	500,011	325,880
Property and equipment, net	40,111	68,688
Restricted cash	-	100,293
Deposits	18,924	18,924
Total assets	$ 559,046	$ 513,785
Liabilities and Stockholders' Deficit		

Current liabilities:		
Accounts payable and accrued liabilities	$ 6,436,439	$ 5,320,239
Bank overdraft	-	31,076
Due to related parties	645,116	459,116
Customer deposits	160,370	65,687
Notes payables, current portion including related parties	1,139,765	852,931
Total current liabilities	8,381,690	6,729,049
Notes payable, long term	86,319	180,656
Total liabilities	8,468,009	6,909,705
Commitments and contingencies	-	-
Stockholders' deficit		
Preferred stock, 20,000,000 authorized		
Preferred stock, Series 'A' 22,034 and 25,620 shares issued and outstanding	22	25
Preferred stock, Series 'C' 91,887 and 103,143 shares issued and outstanding	92	103
Common stock, $0.001 par value, voting, 480,000,000 shares authorized, 25,992,486 and 19,085,859 issued and outstanding	25,802	18,896
Additional paid-in capital	16,397,878	14,478,455
Accumulated deficit	(24,345,983)	(21,097,741)
Total Arrayit Corp s Stockholders Equity (Deficit)	(7,922,186)	(6,600,262)
Non-controlling interest		
Royalty interests	285,000	285,000
Less: Subscriptions receivable	(13,750)	(13,750)
Interest in subsidiaries earnings	(258,024)	(66,908)
Total Non-controlling interests	13,226	204,342
Total stockholders' deficit	(7,908,963)	(6,395,920)
Total liabilities and stockholders' deficit	$ 559,046	$ 513,785

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

ARRAYIT CORPORATION

CONSOLIDATED STATEMENTS OF OPERATIONS

For the years ended December 31, 2010 and 2009

	2010	2009
Total revenues	$ 3,076,967	$ 3,993,737
Cost of sales	1,635,689	3,073,456
Gross margin	1,441,278	920,281
Selling, general and administrative	3,547,677	6,377,496
Research and development	404,262	335,100
Legal expense	585,871	203,507
Profit (loss) from operations	(3,096,532)	(5,995,822)
Gain (loss) on derivative liability	-	10,134,238
Gain (loss) on extinguishment of debt	33,359	(12,834,898)
Interest expense	(376,184)	(278,497)
Net loss	(3,439,358)	(8,974,979)
Less: Net loss attributable to the noncontrolling interest	(191,116)	(66,908)
Net loss attributable to common shareholders	$ (3,248,242)	$ (8,908,071)
Profit (loss) per share basic and diluted	$ (0.14)	$ (2.42)
Basic weighted average number of common shares	23,699,907	3,680,986

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

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ARRAYIT CORPORATION

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS EQUITY (DEFICIT)

For the years ended December 31, 2010 and 2009

	TOTAL ARRAYIT CORPORATION STOCKHOLDERS' EQUITY (DEFICIENCY)								
	Preferred Series A		Preferred Series C		Common Stock		Additional Paid In	Retained	
Description	Number	Dollar	Number	Dollar	Number	Dollar	Capital	Earnings	Total
Balance, December 31, 2008	123,254	123	103,143	103	583,309	584	1,340,868	(12,189,670)	(10,847
Modification of convertible debt	(97,634)	(98)			12,509,357	12,510	5,989,562		6,00
Transfer agent unauthorized issue					190,770				

Effect of warrant upon elimination of derivative upon increase in authorizede share capital								1,249,943		1,249
Options issued by Arrayit Diagnotics								229,087		229
Issuance of shares for cash						2,667	3	1,997		2
Issuance of shares to employees and consultants						4,158,598	4,159	4,151,106		4,155
Issuance of shares for debt						921,158	921	776,611		771
Issuance of shares for services						720,000	720	739,280		740
Issuance of royalty interests										
Net Income for the year ended ended December 31, 2009									(8,908,071)	(8,908
Balance, December 31, 2009	25,620	25	-	103,143	103	-	19,085,859	18,896	14,478,455	(21,097,741)	(6,600
Convert Preferred A to Common	(3,586)	(3)					13,177	13	(10)		

Convert Preferred C to Common	(11,256)	(11)	3,940,015	3,940	(3,929)	
Issuance of shares for services			2,205,010	2,205	1,464,175	1,466