APPLIED DNA SCIENCES INC
Form 424B3
December 17, 2014
Filed Pursuant to Rule 424(b)(3)

File No. 333-199121

PROSPECTUS SUPPLEMENT NO. 1 DATED DECEMBER 17, 2014

(TO PROSPECTUS DATED NOVEMBER 18, 2014)

APPLIED DNA SCIENCES, INC.

PROSPECTUS

$9,100,000 OF SHARES OF COMMON STOCK AND

WARRANTS TO PURCHASE SHARES OF COMMON STOCK

This Prospectus Supplement No. 1 updates and supplements the prospectus of Applied DNA Sciences, Inc. (“the “Company”, “we”, “us”, or “our”) dated November 18, 2014 (the “Prospectus”) with the following attached document which w filed with the Securities and Exchange Commission on December 15, 2014:

A. Our Annual Report on Form 10-K filed with the Securities and Exchange Commission on December 15, 2014

This Prospectus Supplement No. 1 should be read in conjunction with the Prospectus, which is required to be delivered with this Prospectus Supplement. This prospectus supplement updates, amends and supplements the information included in the Prospectus. If there is any inconsistency between the information in the Prospectus and this prospectus supplement, you should rely on the information in this prospectus supplement.

This prospectus supplement is not complete without, and may not be delivered or utilized except in connection with, the Prospectus, including any amendments or supplements to it.

The purchase of the securities offered through the Prospectus involves a high degree of risk. Before making any investment in our common stock and/or warrants, you should carefully consider the risk factors section beginning on page 8 of the Prospectus and the "Risk Factors" section in our Annual Report on Form 10-K filed with the Securities and Exchange Commission on December 15, 2014.

You should rely only on the information contained in the Prospectus, as supplemented or amended by this Prospectus Supplement No. 1 and any other prospectus supplement or amendment thereto. We have not authorized anyone to provide you with different information.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of the Prospectus. Any representation to the contrary is a criminal offense.

The date of this Prospectus Supplement No. 1 is December 17, 2014

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Annex A

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended September 30, 2014

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

For the transition period from _____ to _____

Commission File Number 001-36745

APPLIED DNA SCIENCES, INC.
(Exact name of registrant as specified in its charter)

Delaware	59-2262718
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

50 Health Sciences Drive, Stony Brook, New York	11790	(631) 840-8800
(Address of principal executive offices)	(Zip Code)	(Registrant's telephone number, including area code)

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

Title of Each Class	Name of each Exchange on Which Registered
Common Stock, $0.001 par value	NASDAQ Capital Market
Warrants to purchase Common Stock	NASDAQ Capital Market

Securities registered under Section 12(g) of the Act: None

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

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

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the

Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

x Yes o No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

x Yes o No

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

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 o Accelerated filer x Non-accelerated filer o Smaller reporting company o

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

The aggregate market value of the Registrant's common stock held by non-affiliates of the Registrant, based upon the last sale price of the common stock quoted on the OTC Bulletin Board as of the last business day of the Registrant's most recently completed second fiscal quarter (March 31, 2014), was approximately $82 million. Shares of the Registrant's common stock held by each executive officer and director and by each entity or person that, to the Registrant's knowledge, owned 5% or more of the Registrant's outstanding common stock as of March 31, 2014 have been excluded in that such persons may be deemed to be affiliates of the Registrant. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of December 11, 2014, the Registrant had outstanding 17,309,702 shares of Common Stock, par value $0.001 per share.

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PART I

Forward-looking Information

This Annual Report on Form 10-K (including the section regarding Management's Discussion and Analysis of Financial Condition and Results of Operations) contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, or Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or Exchange Act, and is subject to the "safe harbor" created by those sections. Forward-looking statements include statements using terminology such as "can", "may", "believe", "designated to", "will", "expect", "anticipate", "estimate", "potential" or "continue", or the negative thereof or other comparable terminology regarding beliefs plans, expectations or intentions regarding the future. You should read statements that contain these words carefully because they:

discuss our future expectations;

contain projections of our future results of operations or of our financial condition; and

state other "forward-looking" information.

We believe it is important to communicate our expectations. However, forward-looking statements involve risks and uncertainties and our actual results and the timing of certain events could differ materially from those discussed in forward-looking statements as a result of certain factors, including those set forth under "Risk Factors," "Business" and elsewhere in this report. All forward-looking statements and risk factors included in this document are made as of the date hereof, based on information available to us as of the date thereof, and we assume no obligations to update any forward-looking statement or risk factor, unless we are required to do so by law.

ITEM 1. BUSINESS.

Overview

Using biotechnology as a forensic foundation, we create unique security solutions addressing the challenges of modern commerce. Whether working in supply chain security, brand protection or law enforcement applications, it is our goal to help establish secure flourishing environments that foster quality, integrity and success. With secure taggants, high-resolution DNA authentication, and comprehensive reporting, our botanical DNA-based technologies are designed to deliver what we believe to be the greatest levels of security, deterrence and legal recourse strength.

SigNature® DNA. SigNature DNA is our platform ingredient, at the core of all our security solutions. From application to application the vehicle that carries SigNature DNA is custom designed to suit the application. Exhaustive development efforts have yielded a flexible and durable marker with all the accuracy provided by nature. SigNature DNA is based on full, double stranded plant DNA, and provides forensic power and protection for a wide array of applications. Highly secure, robust and durable, SigNature DNA markers are an ingredient that can be used to fortify brand protection efforts; mark, track and convict criminals; and strengthen supply chain security. Custom DNA sequences can be embedded into a wide range of host carriers including ink, varnish, thread, laminates and metal coatings. These items can then be tested for the presence of SigNature DNA Markers through optical screening or a forensic level authentication. Hundreds of millions of SigNature DNA marks now exist in the public domain on items ranging from consumer product packaging to microcircuits to guitars. We believe that no marks have ever been copied.

SigNature DNA, SigNature® T DNA, fiberTyping®, DNAnet® and digitalDNA®, our principal anti-counterfeiting and product authentication solutions and our Counterfeit Prevention Authentication Program can be used in numerous industries, including microcircuits and other electronics, cash-in-transit (transport and storage of banknotes), textiles and apparel, automotive, printing and packaging, homeland security, law enforcement and home asset marking, identity cards and other secure documents, industrial materials, agrochemicals, pharmaceuticals, consumer products, food and beverage, fine wine, and art and collectibles.

SigNature T DNA and fiberTyping. There is one common thread that runs through the global textile industry: success breeds counterfeiting and diversion. SigNature T botanical DNA markers are used for brand protection efforts and raw material source compliance programs. In situations where natural fibers like cotton or wool are utilized, we can isolate and type inherent DNA, making it possible to verify the presence of specified materials. This fiberTyping process provides DNA verification to help manufacturers, retailers and brand owners ensure quality, safety and compliance of their products.

DNAnet. Recognizing that DNA-based evidence is the cornerstone of the modern era of law enforcement, we have created what we believe to be an effective crime fighting tool: DNAnet, a botanical DNA marker that can be used to definitively link evidence and offenders to specific crime scenes. Whether deployed as a residential asset marker, an offender spray or fog in a retail location or a degradation dye in cash handling boxes, DNA markers facilitate conviction, and establish a heightened level of deterrence. DNAnet, which includes our SmartDNA product line, is a unique security system and effective crime protection system for stores, warehouses, banks, pharmacies, ATMs and the protection of valuables. The system contains a water-based, non-toxic spray that may be triggered during a crime, marking the perpetrator and remaining on their person for weeks after the crime. Each unit is designed to be unique to each store, warehouse or sting operation, allowing the police and prosecutors to link criminals to the crimes. Assets acquired from RedWeb Technologies including Sentry 500 Intruder Spray Systems and Advanced Molecular Taggant Technology and our SmartDNA product line are now included in the DNAnet family of products.

digitalDNA. digitalDNA is a security solution that utilizes the flexibility of mobile communications, the instant accessibility of secure, cloud-based data, and the certainty of DNA to make item tracking and authentication fast, easy and definitive, while providing the opportunity to create a new customer interface. digitalDNA begins with a DNA-secured form of the QR ("quick read") code or other two dimensional code. A unique identification code is created for each article, and represented in an easy-to-read QR style barcode. The product uses forensic authentication of a botanical DNA marker, embedded within a secure QR code, and physically included within the ink used to digitally print the code. Should there ever be a question about the validity of a digitalDNA code, a laboratory-based analysis can be conducted to determine authenticity.

Counterfeit Prevention Authentication Program. Our turnkey program for electronics, military, commercial, and aerospace contractors called the Counterfeit Prevention Authentication Program ("CPA" Program) empowers end-users to verify the originality or provenance of parts that have been marked by their suppliers with our SigNature DNA Markers.

Corporate History

We are a Delaware corporation, which was initially formed in 1983 under the laws of the State of Florida as Datalink Systems, Inc. In 1998, we reincorporated in Nevada, and in 2002, we changed our name to our current name, Applied DNA Sciences, Inc. In December 2008, we reincorporated from Nevada to the State of Delaware.

In November 2005, our corporate headquarters were relocated from Los Angeles, California to the Long Island High Technology Incubator at Stony Brook University in Stony Brook, New York, where we established laboratories for the manufacture of DNA markers and product prototypes, and DNA authentication. The address of our corporate headquarters is 50 Health Sciences Drive, Stony Brook, New York 11790, and our telephone number is (631) 240-8800. We maintain a website at www.adnas.com where general information about us is available. The information on, or that may be accessed through, our website is not incorporated by reference into and should not be considered a part of this report.

To date, we have had a limited operating history, and as a result, our operations have produced limited recurring revenues from our services and products; we have incurred expenses and have sustained losses.

Industry Background

Counterfeiting, product diversion, piracy, forgery, identity theft, and unauthorized intrusion into physical locations and databases create significant and growing problems to companies in a wide range of industries as well as governments and individuals worldwide. Counterfeiting is a truly global problem and it is a problem that appears to be increasing. Revenues generated from counterfeit product sales are estimated to have grown by more than 400% since the early 1990s, while sales of legitimate brands grew just 50% over the same timeframe (The 2012 Global Report on Counterfeiting: Anti-Counterfeiting and The Apparel Industry — February 2012)). The ICC (International Chamber of Commerce) in February 2011 issued an updated report on counterfeiting and piracy that states that the global economic and social impacts of counterfeiting and piracy could reach $1.7 trillion by 2015 (the anti-piracy consortium Business Action to Stop Counterfeiting and Piracy (BASCAP) of the International Chamber of Commerce (ICC): "HP Anti-counterfeiting Africa Conference Impacts on Corporate World").

Counterfeiting is one of the fastest growing economic crimes of modern times. It presents companies, governments and individuals with a unique set of problems. What was once a cottage industry has now become a highly sophisticated network of organized crime that has the capacity to threaten the very fabric of national economies,

endanger safety and frequently kill. It devalues corporate reputations, hinders investment, funds terrorism, and costs hundreds of thousands of people their livelihood every year.

As more and more companies begin to address the problem of counterfeiting, we expect that different systems will compete to be the leading standards by which products can be tracked across world markets. Historically, counterfeiting, product diversion and other types of fraud have been combatted by embedding various authentication systems and rare and easily distinguishable materials into products, such as radio frequency identification ("RFID") devices holograms in packaging, integrated circuit chips and magnetic strips in automatic teller machine cards, banknote threads on currency, elemental taggants in explosives, and radioactivity and rare molecules in crude oil. We believe these techniques are effective but have generally been reverse-engineered and replicated by counterfeiters, which limit their usefulness as forensic methods for authentication of the sources of products and other items.

Products and Services

Every living organism has a unique DNA code that determines the character and composition of its cells. The core technologies of our business allow us to use the DNA of everyday plants to mark objects in a unique manner that we believe cannot be replicated, and then identify these objects by detecting the absence or presence of the DNA. SigNature DNA is at the core of all our security solutions. Our SigNature DNA consists of three steps: creating and encapsulating a specific encrypted DNA segment (sometimes with an associated "Optical Array" that allows for the rapid confirmation of the presence of our SigNature DNA), applying it to a product or other item (which may include derivative chemistries of the SigNature DNA that allow the DNA to permanently bind to the targeted substrate), and detecting the presence or absence of the specific segment (sometimes by the use of specific release agents). The first two steps are controlled exclusively by us and our certified agents to ensure the security of SigNature DNA Markers. Once applied, the presence of any of our SigNature DNA Markers can be detected by us or a customer in a simple spot test, or a sample taken from the product or other item can be analyzed forensically to obtain definitive proof of the presence or absence of a specific type of SigNature DNA Marker (e.g., one designed to mark a particular product).

Signature DNA Markers

Creating a Customer or Product-Specific SigNature DNA Marker

Our SigNature DNA Markers are custom manufactured by us to identify a particular class of or individual products or items. Each individual mark is recorded and stored in a secure database in order that we can later detect it. A single SigNature DNA mark will support at least ten authentications in its lifetime. The power of repeated use provides a fully documented audit or evidence trail.

Because DNA is one of the most dense information carriers known, only minute quantities of SigNature DNA are necessary for successful analysis and authentication. As a result, SigNature DNA can fold seamlessly into production and logistics workflows.

SigNature DNA has been subjected to rigorous testing by the Idaho National Laboratory, a U.S. National Laboratory, by CALCE, the largest electronic products and systems research center focused on electronics reliability, and by verified procedures in our labs. The forensic marker has passed all tests across a broad spectrum of materials and has met key military stability standards. SigNature DNA passed a strenuous “red-team” vetting on behalf of the U.S. Defense Logistics Agency.

Hundreds of millions of SigNature DNA marks now exist in the public domain on items ranging from consumer product packaging to microcircuits to guitars; to our knowledge, none has ever been copied.

SigNature DNA Encryption

Our proprietary encryption system allows us to isolate strands of botanical DNA and then fragment and reconstitute them to form unique “DNA chimers”, or encrypted DNA segments, whose sequences are known only to us.

SigNature DNA Encapsulation

Our encapsulation system allows us to apply a protective coating to encrypted DNA chimers, creating a SigNature DNA Marker that is resistant to heat, cold, vibration, abrasion, organic solvents, chemicals UV radiation and other extreme environmental conditions, and so can be identified for hundreds of years after being embedded directly, or into media applied or attached to the item to be marked.

SigNature DNA Embedment

Our embedment system allows us to incorporate our SigNature DNA Markers into a broad variety of media, such as inks, dyes, textile treatments, thermal ribbon thread, laminates, glues, threads, varnishes, adhesives and metal coatings.

SigNature DNA Authentication

Our forensic level authentication methods allow us to unlock the encrypted DNA chimers by using PCR (polymerase chain reaction) techniques and proprietary primers that were specifically designed by us to detect the DNA sequences we encrypted and embedded into the product or other item. Detection of the DNA chimers unique to a particular item or series of items allows us to authenticate their origin.

Broad Applicability and Ingestible

Our SigNature DNA Markers can be embedded into almost any consumer product, and virtually any other item. For instance, we believe the SigNature DNA we produce is safe to consume and can be used in pharmaceutical drug tablets and capsules. However, use of our SigNature DNA in ingestible products and drugs may require prior approval of the U.S. Food and Drug Administration ("FDA").

SigNature T DNA and fiberTyping

Our scientific team was able to develop genotyping assays and protocols to identify DNA markers that are endogenous to a particular plant in order to differentiate between biological strains of cottons. In addition, in the case of Pima cotton, we have developed proprietary technologies to differentiate between Pima (G. barbadense) and Non-Pima (G. hirsutum) cotton with absolute certainty. In the process, we were also able to develop an approach to attach an exogenous DNA marker to a finished textile product (SigNature T).

SigNature T DNA

SigNature T is a nearly-permanent, forensic identity marker that can be applied to any organic or synthetic fabric. The mark is applied to the fabric at the earliest stage in the supply chain, and can be used to authenticate the originality or origin of the fabric or apparel to which it is applied.

We have demonstrated how our SigNature T DNA can be used to authenticate textiles at all points of the supply chain through to the end user. In addition, we have demonstrated the integration of SigNature T DNA with existing manufacturing processes to produce threads, labels and fabrics manufactured by Yorkshire-based companies and are beginning to work on commercial projects with these companies.

SigNature T markers are precision-engineered and based on botanical (plant) DNA. Additional layers of protection and complexity are added to the mark in a proprietary manner. As for primers, the “key” to unlocking the identity of a particular SigNature T mark, that is unknown to the public and, for practical purposes, cannot be guessed, even by powerful computation. In fibers and fabrics, SigNature T cannot be removed even by harsh and prolonged washes. Similarly, SigNature T cannot be transferred from one garment to another. SigNature T DNA can be incorporated at any point in the textile supply chain as a means to link a genuine product to its original source of manufacture. Our botanical DNA markers can easily be applied to raw cotton fiber, thread, yarn, woven labels or to the finished garment. SigNature DNA is robust, and it can be formulated to be resistant to wash out treatments. Botanical DNA marked textile and apparel products are fully authenticated by our scientific team in our laboratories to ensure that they are truly genuine.

Our technology has proven useful in determining the authenticity of such commonly counterfeited products as Pima cotton and Yorkshire wool.

fiberTyping

fiberTyping is not a marker, but a test of native cotton fiber (only), which gives a clear result that determines whether the original cotton DNA is present in your fiber, yarn or fabric. A small sample of the material, is sent to our labs, and analyzed.

Cotton classification and the authentication of cotton geographic origin are issues of global significance, important to brand owners and to governments that must regulate the international cotton trade. The use of DNA to identify the cotton fiber content of finished textiles is a significant opportunity for license holders to control their brand and for governments to improve their ability to enforce compliance with trade agreements between nations.

Retailers and consumers recognize products containing premium Extra Long Staple cotton, like Egyptian Giza, Peruvian and American Pima, as being the highest quality cotton in the industry. These refined high end cottons are well regarded due to their durability and quality which, in turn, typically commands premium pricing. In order to preserve the quality and performance of premium cotton products, cotton growers and manufacturers are using state-of-the-art technology, known as fiberTyping®, to verify that the original Extra Long Staple cotton fibers are used in the finished product. Just as a person’s DNA specifies all of their unique qualities, biomaterials typically contain genomic DNA or fragments thereof that can be utilized to authenticate originality. We have developed a proprietary genetic-based assay and protocol to identify DNA markers that are endogenous (internal) to a particular product in order to differentiate between biological strains. Our fiberTyping offering enables our customers and potential clients to cost-effectively give assurance to manufacturers, suppliers, distributors, retailers and end-users that their products are authentic and that they are made from the fibers and textiles as labeled. Biomaterials can now be

tracked from field to final purchase guaranteeing the authenticity of the item. As we are testing for innate genomic DNA, we believe these assays cannot be counterfeited. In addition to the global cotton trade, the markets for fiberTyping include biotherapeutics, nutraceuticals, natural foods, wines and fermented alcohols and other natural textiles.

We believe that our DNA extraction protocol and methodologies are more effective than existing forensic systems. We believe that the combination of our SigNature DNA and fiberTyping solutions covers the total authentication market, is applicable to multiple industry verticals, and can mark physical products on the front end and authenticate forensic DNA sequences on the back end.

DNAnet

Introduced in 2011, smartDNA, which is now a part of the DNAnet family, is a unique security system. DNAnet intruder tagging systems help to expand and strengthen any security effort by providing a means of directly linking criminals to crimes. In the event of a crime, the fleeing offender is sprayed with an indelible DNA-marked fluorescing dye. As the crime is investigated, the fluorescing DNA mark can assist police in linking the offender and stolen items to a specific crime scene, creating a greater ability to identify and convict. DNAnet tactical DNA product, in the form of DNA-marked fixative sprays and liquids as well as transferable grease, are being marketed to global police forces. DNAnet is a tactical forensic system providing unique DNA codes for covert operations that require absolute proof of authentication. Assets acquired from RedWeb Technologies, including Sentry 500 Intruder Spray System and Advanced Molecular Taggant Technology are included in the DNAnet family of products.

digitalDNA

digitalDNA® is a cloud-based security platform that utilizes the flexibility of mobile communications, the instant accessibility of data, and the absolute certainty of DNA as a backstop to make item tracking and authentication fast, easy and definitive.

Using a bar code or other automatic identification technology, goods are marked uniquely or to batch level or other characteristic determined by the customer. A cloud database stores codes and enables checks via smartphone or enterprise-level mobile computers. Separately, forensic botanical DNA markers can be physically included within the ink used to print the bar code. Should there ever be a question about the validity of a digitalDNA code, a laboratory-based analysis can be conducted to determine authenticity. Applications may include chain of custody tracking with geo-location option, authenticity check through a supply chain or consumer scan to check article information.

Counterfeit Prevention Authentication (CPA) Program

The program empowers end-users to verify the originality of parts which have been marked by their suppliers with our SigNature® DNA mark. The utilization of our technology has now reached the point where end-users in electronics — such as prime defense contractors and commercial manufacturers — are able to authenticate the SigNature DNA mark on incoming items even if those end-users did not themselves initiate the marking. In this context, the CPA Program provides an accessible and immediate action for companies whose suppliers are currently marking with SigNature DNA. Over 500,000 electronic parts have already been marked. These SigNature DNA-marked parts are now circulating in the electronics supply chain, providing end-users with unprecedented ability to identify parts or gain valuable traceability data.

Our Strategy

To date, the substantial portion of our revenues has been generated from sales of our Signature DNA and fiberTyping, our principal anti-counterfeiting and product authentication solutions. We expect to continue to grow revenues from sales of our SigNature DNA, fibertyping, DNAnet and digitalDNA offerings. Key aspects of our strategy include:

Customize and Refine our Solutions to Meet Potential Customers' Needs

We are continuously improving and expanding our product offerings by testing the incorporation of our technologies into different media, such as newly configured labels, inks or packing elements, for use in new applications. Each prospective customer has specific needs and employs varying levels of existing security technologies with which our solution must be integrated. Our goal is to develop a secure and cost-effective system for each potential customer that can be incorporated into that potential customer's products or items themselves or their packaging so that they can, for instance, be tracked throughout the entire supply chain and distribution system.

Continue to Enhance Detection Technologies for Authentication of our SigNature DNA Markers

We have also identified and are further examining opportunities to collaborate with companies and universities to develop a new line of detection technologies that will provide faster and more convenient ways to authenticate our SigNature DNA Markers. The strength of our security solutions is based on a multi-layered architecture with DNA as a forensic foundation, optical markers for screening and detection, and barcode indicia for tracking within an IT system. We have active programs in each of these areas to deliver increased complexity to our mark against copying as well as to provide more information from each mark at a user's time and location of decision. In particular a next-generation optical mark reader, coupled with enhanced chemical markers, will be introduced for companies who desire to increase screening for our marked goods originating from or passing through their facilities.

Target Potential High-Volume Markets

We will continue to focus our efforts on target vertical markets that are characterized by a high level of vulnerability to counterfeiting, product diversion, piracy, fraud, identity theft, and unauthorized intrusion into physical locations and databases. Today our current target markets include microcircuits and other electronics, cash-in-transit (transport and storage of banknotes), textiles and apparel, automotive and, printing and packaging and our future target markets include homeland security, law enforcement and home asset marking, identity cards and other secure documents, industrial materials, agrochemicals, pharmaceuticals, consumer products, food and beverage, fine wine, and art and collectibles. If and when we have significantly penetrated these markets, we intend to expand into additional related high volume markets.

Pursue Strategic Acquisitions and Alliances

We intend to pursue strategic acquisitions of companies and technologies that strengthen and complement our core technologies, improve our competitive positioning, allow us to penetrate new markets, and grow our customer base. We also intend to work in collaboration with potential strategic partners in order to continue to market and sell new product lines derived from, but not limited to, DNA technology.

Target Markets

We have begun offering our products and services in Europe, the United States and Asia. At the present time, we are focusing our efforts on microcircuits and other electronics, cash-in-transit, textile and apparel, automotive, and printing and packaging businesses. In the future, we plan to expand our focus to include homeland security, law enforcement and home asset marking, identification cards and other secure documents, industrial materials, agrochemicals, pharmaceuticals, consumer products, food and beverage, fine wine, and arts and collectibles.

Present Markets:

Microcircuits and other electronics

The global trade in recycled electronics parts is enormous and growing rapidly, driven by a confluence of cost pressures, increasingly complex supply chains and the huge growth in the amount of electronic waste disposed around the world, especially Asia. Recycled parts, relabeled and sold as new, threaten not only military systems but also commercial transportation systems, medical devices and systems, and the computers and networks that run today's financial markets and communications systems. The vast majority of counterfeits discovered in military equipment are semiconductors, the stamp-sized silicon wafers that act as the "brains" of nearly every type of modern electronic system. According to an article in DefenseOne (Counterfeits Can Kill U.S. Troops. So Why Isn't Congress and DoD Doing More to Stop it? — August 8, 2013), the U.S. military is an important consumer of these tiny products; a single F-35 Joint Strike Fighter jet is controlled by more than 2,500 semiconductors.

In 2011, the General Accounting Office (GAO) issued, under the name of an imaginary OEM, open RFPs on the internet for electronic parts (GAO — Report to the Committee on Armed Services — US Senate — February 2012). All of the part numbers requested were either post-production or entirely fictional. The GAO received seven prototype parts in response to its RFP: every single one was counterfeit. In the over $300 billion semiconductor global market for 2013 this would amount to $15 billion (Global Chip Revenue Rises in 2013, Reversing Loss from Earlier Year; Memory and Wireless Lead the Way — April 23, 2014). The proliferation of counterfeit parts in the supply chain has reached epidemic heights.

In a January 2013 report on a four-year study conducted between 2005 and 2008, the U.S. Department of Commerce revealed that 39% of 387 companies encountered counterfeit electronic components, microcircuits, or circuit boards. Some industry statistics even suggest that counterfeit parts account for 10% of all electronic equipment sold. In fact, counterfeiters are becoming far more adept at passing off bogus parts by leveraging the same sophisticated technologies that chip manufacturers use to produce authentic ones. Laser equipment re-marks parts appear as if they are products of a specific manufacturer with a later date code (Embedded Intel Solutions — Counterfeit Parts are on the Rise).

Since November 15, 2012, the Defense Logistics Agency ("DLA"), an Agency within the U.S. Department of Defense, requires that defense contractors provide items that have been marked with botanically-generated DNA produced by us or our authorized licensees. This requirement has been in place for items falling within Federal Supply Class (FSC) 5962, Electronic Microcircuits, which have been determined to be at high risk for counterfeiting.

On September 11, 2014, DLA announced that beginning on December 15, 2014, DLA will no longer issue solicitations requiring suppliers to provide DNA marked FSC 5962 microcircuits. Instead, DLA's Electronic Test Laboratory in Columbus, Ohio will DNA mark all FSC 5962 microcircuits. This change will create a centralized, streamlined DNA marking process within DLA. On November 13, 2014, we were awarded a contract by DLA to

provide DLA with SigNature DNA marks and related equipment, services and training. We are working closely with DLA on a transition plan that may take approximately one year to accomplish.

The new DLA program to mark parts with our DNA product at their facility could contain financial risk to our company. The new program should also result in a far more streamlined, and scaled-up process, which could reduce certain costs by providing economies of scale, and benefits of marking technology geared to high-volume operations. It would, unlike today, be governed by a single direct contract with DLA.

Cash-in-Transit

Cash-in-transit businesses transport and store cash and ATM cassettes. In the U.K. alone, there is an estimated £500 billion being transported each year, or £1.4 billion per day (British Security Industry Association: “Combating Cash Delivery Crime”). The nature of this business makes cash-in-transit an attractive target for criminals and as a result the industry invests in excess of £100 million per year in security equipment and devices. The incidence of cash-in-transit based crime had increased over 170% in London between 2005 and 2008, according to the Metropolitan Police. Governments and banks today face the real challenge of staying ahead of increasingly sophisticated counterfeiting without sacrificing security features and banknote longevity to costs. Since 2008, there have been thirty-two instances where criminals have been convicted of crimes where SigNature DNA forensic evidence has been provided to UK Police to assist them to secure convictions. These criminal cases have resulted in 91 offenders being convicted and receiving sentences totaling approximately 455 years of imprisonment. According to the FBI, in 2011 alone, more than $30 million was stolen and just over 100 people were killed or injured in some 5,000 robberies of financial institutions across the nation (Bank Robbery: “Even in this High-tech Age, Old-fashioned Bank Robberies are Still a Cause for Concern”).

We incorporate our SigNature DNA Markers in cash degradation inks that are used in the cash-in-transit industry in countries throughout Europe. This solvent-based ink marks bank notes if the cash box is compromised and has the ability to penetrate the bank notes rapidly and permanently. We believe our SigNature DNA Markers are more resilient and detectable than other competing technologies.

Textiles and Apparel

Cotton classification and the authentication of cotton geographic origin are issues of global significance, important to brand owners and to governments that must regulate international cotton trade. We believe that our SigNature T DNA and fiberTyping solutions could have significant potential applications for the enforcement of cotton trade quotas in the U.S. and across the globe, and for legislated quality improvement within the industry. We believe that similar issues face the wool and other natural product industries and have begun to introduce our products to these markets as well. In addition, our digitalDNA system can be used to provide track and trace capability for labels on finished garments to protect against counterfeiting and diversion.

According to Havocscope and the Coalition Against Counterfeiting and Piracy, the market value of counterfeit clothing is $12 billion. In recent years, apparel accounted for 14% of the total counterfeit goods seized by U.S. agencies. Cass Johnson, with the National Council of Textile Organizations says counterfeit fabrics cost a billion dollars every year in lost tariffs to the United States. Britain’s fashion industry is worth around $57 million to the economy, but counterfeit clothing and footwear is estimated to cost designer brands and retailers around $5.4 billion each year.

Our SigNature T DNA anti-counterfeiting system for DNA marking and authentication of wool and cotton fibers is currently in use by our customers. We are now marking product in the United States and abroad to assure integrity of the textile supply chain. Our SigNature T commercial program involves the creation of a unique SigNature T DNA marker that will be used to mark one customer’s Extra Long Staple Pima cotton at the ginning stage. Once marked, the premium cotton fiber may be authenticated for textile identity from grower to ginner to spinner to manufacturer to distributor to retailer. At each step of the process, its textile identity will be tested to link the original cotton fiber to finished product, preserving the authenticity of the product and the integrity of the supply chain.

Automotive

Car theft affects thousands of people each year and has more wide-ranging impacts than simply the loss of a vehicle. It can be a difficult and traumatic time for the victims and have many emotional as well as financial consequences. In addition to the car owner, motor vehicle crime also affects car manufacturers, law enforcement agencies, registration authorities, insurance companies, legislative bodies, justice departments and vehicle related businesses, such as rental companies and scrap yards.

Interpol reported that for the year ending December 31, 2013, they had received 7.2 million records of reported stolen motor vehicles from 130 different countries (Interpol — Database Statistics). According to the FBI, a motor vehicle was stolen in the United States every 44 seconds in 2012 and the value of the stolen motor vehicles was more than $4.3 billion.

Car crime is a huge and profitable business, costing billions of dollars per year and representing approximately one third of all reported crime. It is estimated that approximately 70 percent of stolen cars are broken up and sold for spare parts, while the rest are given a false identity and sold, with many of those being exported to the Middle and Far East.

Our DNAnet product is currently being used to combat car theft. New cars are marked with a unique code applied at point of delivery to the customer and customer details are registered on a secure database. If the car is stolen and recovered, police would be able to link the criminal to the crime, and would know exactly where to return the vehicle. Highly visible warning stickers are displayed on the windshield of the car, deterring theft in the first place. Since 85% of stolen cars are taken after theft of car keys, other kinds of crime, such as home burglaries, also would be deterred.

Our SigNature DNA mark is being used to protect two European automotive manufacturers against the theft of automotive parts imported into at least one E.U. country. A unique, botanical DNA-based mark is designed and applied to multiple locations on the vehicle. The SigNature® DNA mark provides absolute identification for the vehicle, while also recording the name of the owner of that vehicle in a secure database. The marks are covert and difficult to remove. If found, vehicles and their component parts are traceable back to its owner and location, from anywhere on the globe.

Printing and Packaging

The scourge of counterfeiting in packaging has greatly intensified in recent years. Counterfeiting has spiked, causing detrimental health concerns for consumers, safety concerns for law enforcement agencies, and financial concerns for businesses worldwide. As a result, the global anti-counterfeit packaging market is estimated to reach approximately $128.6 billion by the year 2019, according to MarketsandMarkets.

Billions of dollars per year are at stake for companies as they seek ways to ensure that the products sold with their logos and branding are authorized and authentic. The proliferation of counterfeiting requires brand owners and their converter/printer partners to work together to create a multi-layered protection plan so that their packaging and labels protect their brands and deter those trying to profit at their (and their reputation's) expense.

Counterfeiters have become so good at their unlawful activity that spotting the difference between legitimate and counterfeit products can be daunting. They have many ways to subvert legitimate brands. They may take an out-of-date — but legitimate — product and sell it in packaging and labels that have been faked. Sometimes, everything — including the packaging, labels and product itself — is counterfeit. Criminals might also use legitimate packaging with knock-off products.

We believe that our DNA taggants are the most advanced and secure technology available to the printing and packaging industries to combat counterfeit products. Our SigNature® DNA taggants offer a high level of security and flexibility in a cost-effective and easy-to-use format to suit the requirements and budget of any company. They can be either added to the substrate itself or to the ink or toner to act as a trace without impacting the quality of the ink or the substrate and without being able to be removed. A specialized reader is required to detect SigNature DNA and verify that a product is authentic. Our technology is versatile and is currently being used on packaging of food products by Nissha. Nissha uses SigNature DNA-based ink with its inkjet printing systems to help secure the fresh fish supply chain for the Ōita Fisheries Co-operative. The Ōita fish label is automatically linked to a central database that enables the food supplier, retailer as well as the end consumer to verify the original product information at the point of sale. In the future, it is our goal to be able to mark food and beverages directly with our safe and secure SigNature DNA taggants.

We have entered into a Certified Partner Program with six organizations. This program assures end-users of compliance with our standards for quality, reliability and security. The Program is organized into six Certified Partner category types: Marking, Printer, Equipment, Services, Test and Software Partners. Partnering with companies in each of these areas across an array of industries will provide a portfolio of solutions to the marketplace.

Future Markets:

Homeland Security

The U.S. military is facing the challenge of the increasing intrusion of counterfeit electronics and other parts into its supply lines. This problem is not limited to electronics. Foreign suppliers using substandard materials could be producing rivets, bolts and screws that hold together everything from missile casings to ship ladders. The explosion of counterfeit parts is being driven by an expanding global economy and an emphasis on low-price contracting — both of which come as the U.S. Department of Defense is relying more heavily on older platforms, with parts that are becoming obsolete. The global semiconductor market has been estimated to be as large as $300 billion per year, all subject to the risks of counterfeiting. The US Department of Defense is estimated to spend $4 billion per year in the semiconductor market.

On September 9, 2010, Homeland Security Newswire published an article "Fake chips from China threaten U.S. military systems" in which a U.S. Chamber of Commerce estimate finds that the global market for counterfeit electronics may be as large as $10 billion. While these references include daunting statistics, the underlying problem has not changed because there was no satisfactory technological solution. Senate hearings in November 2011 revealed the discovery of over 1,800 incidents, totaling over 1 million parts, of counterfeit electronic parts in the defense supply chain (Senate Armed Services Committee Releases Report on Counterfeit Electronic Parts — Monday May 21, 2012). According to the semiconductor industry, counterfeiting results in a $7.5 billion loss in revenue annually as well as a

loss of 11,000 U.S. jobs.

DNA-marking using our SigNature DNA marks, protects the consumer, the government and our service men and women. The manufacturers can ensure that only properly screened, original product goes to users. The same DNA marking can then protect the manufacturers themselves in the form of returned product which they must replace or repair. Broadly applicable, DNA marking could be disseminated as industry best practices and military standards.

Our SigNature DNA solution can provide secure, forensic, and cost-effective anti-counterfeiting, anti-piracy and identification solutions to military organizations and other companies supplying microelectronics and similar products globally in need of securing their supply chains.

Law Enforcement and Home Asset Marking

Law enforcement organizations are always seeking a system they can use which will provide absolute proof of authentication. Specifically developed for covert operations, DNAnet products form an invisible coating when applied to skin, plastics, metals, glass, wood and fabric.

Forensic marking of home assets uses technology to code valuables at risk of theft to mark burglars, linking them directly with a crime scene. Over the years, authorities have found it difficult to obtain convictions of thieves in possession of suspected stolen property unless the true owner can be identified. We believe that DNAnet enhances law enforcement effectiveness by providing forensic quality evidence. We have been working with the UK Metropolitan Police Service (MPS) by providing DNAnet property marking kits as part of a major initiative to reduce crime in targeted London neighborhoods. Pilot programs are also ongoing in Sweden.

Additional pilot studies are planned or ongoing, formulating our SigNature DNA to be used in other areas of law enforcement including non-lethal ammunition.

Identification Cards and Secure Documents

Governments are increasingly vulnerable to counterfeiting, terrorism and other security threats at least in part because currencies, identity and security cards and other official documents can be counterfeited with relative ease. For instance, Havocscope, a company that collects black market intelligence and identifies security threats, reports that the value of counterfeit identification and passports is currently $100 million. (Havocscope — Fake IDs bought in the United States) Governments must also enforce the various anti-counterfeiting and anti-piracy regimes of their respective jurisdictions which becomes increasingly difficult with the continued expansion of global trade. Just to highlight the size of the problem, in April 2012 the European Parliament estimated that of the 6.5 million biometric passports in circulation in France between 500,000 and one million are ‘false’ having been obtained using counterfeit documents (Biometric National IDs and Passports: A False Sense of Security — June 19, 2012). Our SigNature DNA platform ingredient can provide secure, forensic, and cost-effective anti-counterfeiting, anti-piracy and identification solutions to local, state, and federal governments as well as the defense contractors and the other companies that do business with them. Our SigNature solution can be used for all types of identification and official documents, such as:

passports;

lawful permanent resident, or “green” cards;

visas;

drivers’ licenses;

Social Security cards;

military identification cards;

national transportation cards;

security cards for access to sensitive physical locations; and

other important identity cards, official documents and security-related cards.

Industrial Materials

The global polyolefin market is witnessing high growth on an account of increasing applications, technological advancements, and growing demand in the Asia-Pacific region. Polyolefins are largely used in industries such as film & sheet (food packaging, stretch & shrink films, trash bags, etc.), injection molding (packaging, automotive & transportation, consumables & electronics, building & construction, etc.), blow molding (blow molded bottles for juice, milk, motor oil, laundry detergents, etc.), and fibers & tapes (building & construction, etc.). Green polyolefins (mainly bio-polyethylene & bio-polypropylene), possess similar properties as that of petroleum-based polyolefin, are gaining popularity. (Polyolefin Markets by Types and Geography — Global Trends and Forecasts to 2018) Companies sell premium-quality plastic products, manufactured under the highest level of quality control and environmental safety control. Such high value products are prime candidates for counterfeiting via addition of cheap surrogates,

manufactured as a low quality product with poor environmental safety control. Such counterfeit products would thus command premium pricing while compromising the prestige of the branded products. According to a new technical market research report, Global Market For Polyolefin Resins (PLS052A), from BCC Research, the global size of the polyolefin resins market was valued at $151.1 billion in 2011. Total market value is expected to reach $187.5 billion in 2016 after increasing at a five-year compound annual growth rate (CAGR) of 4.4%.

Agrochemicals

In Europe and other areas of the world use of counterfeit and illegally traded pesticides is increasing. Untested and unregulated products may threaten the health of farmers and consumers and pose risks to the natural environment. Counterfeit pesticides that make their way into the United States threaten the integrity of those industries that depend on the benefits of pesticide use.

Fighting counterfeit pesticides is a complex task. We believe that enforcement of European regulations governing pesticide use is inadequate and has led in recent years to an increase in use of illegal, counterfeit pesticides in European countries.

European Crop Protection Association statistics show that nearly 10% of the pesticides used in Europe are counterfeit and that their trafficking provides criminal organizations with an annual revenue of up to EUR 6 billion. According to a report by the European police cooperation body Europol, illegal products account for up to one quarter of all the crop protection products used in some Member States.

We are currently working in collaboration with a U.S.-based multinational company to SigNature DNA mark, protect and authenticate a crop protection product, and have initiated a pilot program to authenticate the SigNature DNA marker in the product itself, as well as verify the SigNature DNA-marked product after it is applied onto crops in the field. The value to the customer for this application is to ensure the quality and authenticity of the product, to minimize the risk of liability that might occur if the product is not used in compliance with the license agreement that is linked to the product, and ultimately, to ensure that the integrity of the customer's supply chain is preserved. We are in similar discussions with other multinational agrochemical companies to develop customized SigNature DNA programs for other herbicides, insecticides, fungicides and pesticides, although there can be no assurance that these discussions will be successful. We anticipate that these programs will begin with pilot studies that will provide the client with an understanding as to how the SigNature DNA marker and authentication program will perform in the product itself and in the field. We intend to market and sell programs for the digitalDNA track and trace system that can ensure the original product is linked to original packaging, and thus ensuring the integrity of the agrochemical supply chain.

Pharmaceuticals

The pharmaceutical industry also faces major problems relative to counterfeit, diluted, or falsely labeled drugs that make their way through healthcare systems worldwide, posing a health threat to patients and a financial threat to drugmakers and distributors. Counterfeit prescription pharmaceuticals are a growing trend, widely recognized as a public health risk and a serious concern to public health officials, private companies, and consumers. The National Association of Boards of Pharmacy estimates that counterfeit drugs account for 1–2% of all drugs sold in the United States. The World Health Organization (WHO) estimates the annual worldwide "take" from counterfeit drugs to be £13 billion (approximately $20 billion USD), a figure that is expected to double by the end of this decade In some countries, counterfeit prescription drugs comprise as much as 70% of the drug supply and have been responsible for thousands of deaths in some of the world's most impoverished nations, according to the WHO. Counterfeit pharmaceuticals are estimated to be a billion-dollar industry, though some estimate it to be much larger. In 2012, the WHO reported that in over 50% of cases, medicines purchased over the Internet from illegal sites that conceal their physical address have been found to be counterfeit (WHO: Medicines: Spurious/falsely-labelled/falsified/counterfeit (SFFC) medicines Fact Sheet June 2012). According to the WHO, counterfeiting can apply to both branded and generic products and counterfeit pharmaceuticals may include products with the correct ingredients but fake packaging, with the wrong ingredients, without active ingredients or with insufficient active ingredients.

Based on this growing threat, many countries have started to address vulnerabilities in the supply chain by enacting legislation which, among other things, requires a comprehensive system, most often referred to as serialization or in the United States as Drug Supply Chain Security. In November 2013, H.R.3204, the Drug Quality and Security Act was signed into law and placed responsibility on the FDA to regulate and monitor the manufacturing of compounded drugs, rather than letting states enact their own, sometimes conflicting standards. The FDA's proposed rules are in public feedback period now, with a timeline for adoption.

Drug Supply Chain Security and serialization requirements will be affecting all aspects of the pharmaceutical supply chain, starting with the manufacturer down through the packager, wholesaler, distributor and final dispensing entity. The laws provide an 'audit trail' (or documented evidence) to help to identify and catch counterfeiting and diversion. Serialization requires manufacturers, or in some virtual supply chains third-party packagers, to establish and apply to the smallest saleable unit package or immediate container a "unique identification number." In some cases, drug makers are spending as much as 8 to 10 per cent of a medicine pack's total production cost only on solutions to protect it from duplication and counterfeiting, according to company executives. Our unique DNA identifier mark-embedded in the ink of a unique serialized barcode can provide a layered security foundation for a customer solution in this market.

Consumer Products

Counterfeit items are a significant and growing problem with all kinds of consumer packaged goods, especially in the retail and apparel industries. According to the World Customs Organization, European clothing and footwear companies lose an estimated EUR 7.5 billion per year to counterfeiting and Havocscope values the counterfeit clothing market at $12 billion (Havocscope — Counterfeit Clothing Market Value: $12 billion). We have developed and are currently marketing a number of solutions aimed at brand protection and authentication for the retail and apparel industries, including the clothing, accessories, fragrances and cosmetics segments. Our SigNature DNA platform ingredient can be used by manufacturers in these industries to combat counterfeiting and piracy of primary, secondary and tertiary packaging, as well as the product itself, and to track products that have been lost in transit, whether misplaced or stolen.

Food and Beverage

Counterfeit food threats are becoming more common as supply chains become more global and as imaging and manufacturing technology become more accessible. There are numerous alarming examples of counterfeit foods that have been reported. For instance, long-grain rice is being labelled and sold as basmati rice, Spanish olive oil is being bottled and sold as Italian olive oil, and mixtures of industrial solvents and alcohol are being sold as vodka. In addition, herbal teas have been found to contain no herbs or tea and juices have been found to contain vegetable oil, which is used as a flame retardant, and labeled tuna turns out to be an unidentifiable concoction of random meats. Although many of these stories have emerged from the UK and Europe, the fake-food problem is also relevant in the United States.

The National Center for Food Protection and Defense estimates that Americans pay $10 billion to $15 billion annually for fake food — often due to product laundering, dilution and intentionally false labeling.

We believe our SigNature DNA taggants and authentication program can help in the battle against counterfeit foods and beverages. Our technology is versatile and is currently being used on packaging of food products by Nissha. Nissha uses SigNature DNA-based ink with its inkjet printing systems to help secure the fresh fish supply chain for the Ōita Fisheries Co-operative. The Ōita fish label is automatically linked to a central database that enables the food supplier, retailer as well as the end consumer to verify the original product information at the point of sale. In the future, it is our goal to be able to mark food and beverages directly with our safe and secure SigNature DNA taggants.

Fine Wine

Vintners and purveyors of fine wine are also vulnerable to counterfeiting or product diversion. We believe our SigNature solutions can provide vintners, purveyors of fine wines and organizations within the wine community several benefits:

Verified authenticity increases potential customers' confidence in the product and their purchase decision;

For the vintner, the SigNature solutions can strengthen brand support and recognition, and offers the potential for improved marketability and sales; and

SigNature DNA Markers can be embedded in bottles, labels, or both at the winery, and easily authenticated at the location of the wine distributor or auctioneer.

Art and Collectibles

The artworks and collectibles markets are also particularly vulnerable to counterfeiting, forgery and fraud. New works are produced and then passed off as originating from a particular artistic period or source, authentic fragments are pieced together to simulate an original work, and existing works are modified in order to increase their purported value. Such phony artwork and collectibles are then often sold with fake or questionable signatures and "provenance," or documented ownership histories that confirm authenticity.

We believe our SigNature DNA Markers can safely be embedded in, and so can be used to designate and then authenticate, all forms of artwork and collectibles, including paintings, books, porcelain, marble, stone, bronzes, tapestries, glass and fine woodwork, including frames. We believe they can also be embedded in any original supporting documentation related to the artwork or collectible, the signature of the artist and any other relevant material that would provide provenance, such as:

A signed certificate or statement of authenticity from a respected authority or expert on the artist;

An exhibition or gallery sticker attached to the art or collectible;

An original sales receipt;

A film or recording of the artist talking about the art or collectible;

An appraisal from a recognized authority or expert on the art or collectible; and

Letters or papers from recognized experts or authorities discussing the art or collectible.

Sales and Marketing

We have 11 employees engaged in sales and marketing, of which five are directly involved with sales. We expect to hire additional sales directors and/or consultants to assist us with sales and marketing efforts with respect to our target vertical markets in the areas of pharmaceuticals, printing and packaging and consumer asset marking.

Research and Development

Our research and development efforts are primarily focused on incorporating DNA into carriers (such as ink or textile treatments), and authenticating DNA from the marked substrates. As part of this effort, we typically conduct feasibility and pilot testing to ensure that DNA application methods are compatible with the customer's manufacturing and logistic processes, and that they can be implemented in a cost effective manner. In some cases, the DNA application methods may undergo wash-out and/or adherence tests to ensure that DNA can be authenticated even if it is subjected to aggressive removal techniques. We are also actively involved in identifying new formulation development, and new application methods that provide even better adhesion of DNA to substrates, and more homogeneous distribution of the DNA onto the surface. In short, we have considerable experience working with a wide range of carriers and substrates, and authenticating them even years after they have been applied onto the surface. We believe that our continued development of new and enhanced technologies relating to our core business is essential to our future success. We incurred $1,300,750, $692,480 and $432,669 on research and development activities for the years ended September 30, 2014, 2013 and 2012, respectively.

Raw Materials and Suppliers

Our sources of raw materials include botanical sources of DNA that are readily available in nature, which we are able to replicate to use in our product offerings. In general, our customers provide their materials to us in their own packaging to which we include our DNA products and return to them in their own packaging.

Manufacturing

We have the capability to manufacture SigNature DNA markers, covert DNA ink, and SigNature PCR kits at our laboratories in Stony Brook. We rely upon other companies to manufacture our overt color-changing DNA Ink. We also have in-house capabilities to complete all fiberTyping authentications.

Distribution of our Products and Commercial Agreements

Our products are distributed the following ways:

directly to the customer;

to a designated third party trained to mark parts for military suppliers (at the request of the customer); and

through a licensed distributor.

As of September 30, 2014, we entered into agreements with a few dozen customers to use Signature DNA markers in connection with the DLA program. These include customers at all nodes in the supply chain, including prime contractors, authorized distributors, independent distributors and manufacturers. Over 500,000 electronic components have been marked to this point. On November 13, 2014, we were awarded a contract by DLA to provide DLA with SigNature DNA marks and related equipment, services and training. We are working closely with DLA on a transition plan that may take approximately one year to accomplish.

Office of the Secretary of Defense. On August 28, 2014, we were awarded a two-year development contract by the Office of the Secretary of Defense on behalf of the Defense Logistics Agency (“DLA”) in the amount of $2.97 million. The Rapid Innovation Fund project will develop a single authentication platform — our Signature DNA and complementary technologies — to identify authentic products and deter counterfeits from infiltrating six Department of Defense Federal Supply Groups (“FSGs”).

Those FSGs are, in order of risk to DLA:

1. FSG 59 (Electrical and Electronic Equipment Components)
2. FSG 31 (Bearings)
3. FSG 25 (Vehicular Equipment Components)
4. FSG 29 (Engine Accessories)
5. FSG 47 (Pipe, Tubing, Hose and Fittings)

6. FSG 53 (Hardware and Abrasives)

Our DNA marking solution currently protects items in DoD Federal Supply Class (FSC) 5962, Microcircuits. This project will demonstrate our authentication solutions for the other high-risk commodities above.

We will perform services such as development, test and evaluation, field trials, and transition to government operations.

U.S. Missile Defense Agency. On July 14, 2014, we were awarded a Phase II SBIR contract by the U.S. Missile Defense Agency to perform research and development for avoidance of counterfeit parts by expanding the scope and scale of its existing SigNature DNA® technology platform established in its Phase I SBIR contract for Federal Supply Class 5962 electronic components, and by developing an optical reader. The contract provides for monthly payments to us totaling approximately $975,000 over a two year period.

Borealis Agreement. On March 31, 2014, we and Borealis AG, a provider of polyolefins, signed a term sheet for mutual development and cooperation regarding the supply of markers — and related additives — for polyolefin products. The cooperation between the parties will explore and test the feasibility of the project. The contract provides for initial payments to us aggregating $350,000, comprised of development and exclusivity fees. The payment of further installments is dependent on achieving specific performance goals over a defined period of less than one year.

3SI Agreement. On August 9, 2011, we entered into a Supplier Agreement, dated as of August 3, 2011 (the "Supplier Agreement"), with 3SI Security Systems, Inc., a manufacturer and seller of asset protection security systems based on ink and smoke staining as well as GPS technology ("3SI"). On the same date, we also entered into a License Agreement with 3SI, dated as of August 3, 2011 (the "License Agreement"). Under the terms of the Supplier Agreement, 3SI will purchase DNA markers and related products ("Markers") from us to be incorporated into products subject to certain patents ("Licensed Patents") owned by 3SI (the "Products"). Pursuant to the License Agreement, 3SI granted a nonexclusive irrevocable license to us to make, have made, use, import, offer to sell and sell the Products. Under the terms of the Supplier Agreement, 3SI is permitted to purchase the Products from us from time to time pursuant to purchase orders. The purchase price for the Products will be as set forth in an applicable product schedule for the purchase orders and may be adjusted from time to time pursuant to the terms of the Supplier Agreement. Under the terms of the License Agreement, we agreed to pay an initial payment and royalties to 3SI based on the number of Products sold, with such royalties being subject to adjustment pursuant to the terms of the License Agreement. The terms of the Supplier Agreement and the License Agreement will continue until the expiration of the Licensed Patents, unless earlier terminated under the terms of the respective agreements. Under the terms of the Supplier Agreement, 3SI has the right to immediately terminate upon written notice to us in the event that we fail to continuously maintain a minimum number of Markers to be incorporated into the Products, or upon 30 days written notice to us. Under the terms of the License Agreement, 3SI has the right to immediately terminate upon written notice to us in the event that we fail to continuously maintain a minimum number of Markers, or fail to sell Markers to 3SI for incorporation into the Products for a certain time after being ordered. On March 28, 2014, the License Agreement of August 3, 2011 was terminated and replaced by a "New License Agreement". Pursuant to the New License Agreement, 3SI granted a nonexclusive irrevocable license to us to make, have made, use, import, offer to sell and sell the Products. No additional payments were made. Under the terms of the New License Agreement, 3SI has the right to immediately terminate upon written notice to us in the event that we fail to comply with the terms of the Supply Agreement.

Nissha Agreement. On December 14, 2009, we entered into a Supply Agreement with Nissha Printing Co., Ltd. ("Nissha"), an international printing company. In the agreement, we agreed to supply our authentication marks to Nissha to be incorporated into their printing ink. We received an initial fee, and we receive an annual fee and authentication mark fee for each unique authentication mark purchased. Additional fees may be received if more than 10 authentications per year are ordered by Nissha.

C.F. Martin & Co. Agreement. On July 18, 2011, we entered into a Joint Development Agreement, dated as of June 30, 2011 with C.F. Martin & Co., Inc., a designer and manufacturer of acoustic guitars, strings for acoustic guitars, and related guitar components and accessories ("Martin"). Under the terms of the agreement, we and Martin jointly developed, created and applied new techniques and know-how for labeling and authenticating guitars, guitar strings and related guitar components and accessories using DNA security markers created by us. Each party shall bear and be responsible for its own expenses and costs of the development and creation of the techniques and know-how. The agreement also provides that Martin shall purchase DNA security markers exclusively from us during the term of the agreement. The term of the agreement will continue until the parties agree that the development and creation of techniques or know-how for labeling guitars or guitar strings with DNA security markers is complete, unless either party terminates the agreement by giving at least sixty (60) days written notice to the other party.

Defense Logistics Agency. On June 17, 2011, we received approval and permission to disclose from the Defense Logistics Agency of the U.S. Department of Defense a time and material subcontract (the "Subcontract") that we entered into on June 2, 2011 with the Logistics Management Institute ("LMI"). Under the terms of the Subcontract, we performed work and services for LMI and the DLA relating to a program to demonstrate the functional, technical and business viability of DNA marking technology as an anti-counterfeiting measure by using it in the DLA microcircuit supply chain. The program was divided into six tasks and involves the preparation, implementation and evaluation of

marking materials for microcircuit chips and packages, creation of a business case analysis, development of a pricing and transition plan and identification of feasible techniques to apply DNA marks in conjunction with laser marking. The period of performance of the Subcontract was from May 26, 2011 through November 26, 2012. We received payment of $913,400 under this Subcontract through November 26, 2012, when the contract expired. On November 13, 2014, we were awarded a contract by DLA to provide DLA with SigNature DNA marks and related equipment, training and services.

RedWeb Asset Purchase. On May 10, 2013, we entered into an Asset Purchase Agreement (the "Asset Purchase Agreement") with RedWeb Technologies Limited ("RedWeb"), a corporation incorporated and registered under the laws of England & Wales, to purchase certain assets of RedWeb ("Purchased Assets") relating to its forensic tagging security system for a purchase price of £400,000 ($624,080). We completed the acquisition of the Purchased Assets on the same day. The Purchased Assets include RedWeb's Sentry 500 Intruder Spray System, RedWeb's Advanced Molecular Taggant Technology and all products relating thereto, certain intellectual property and supplies relating to the foregoing. £40,000 ($62,408) of the purchase price was held in escrow for up to one year to be applied against the indemnification obligations of RedWeb pursuant to the Asset Purchase Agreement. During May 2014, the escrow account was closed and we received £35,000 and paid RedWeb £5,000.

Defense Contractor. On October 4, 2013, we, as seller, entered into a master option agreement with one of the four largest American defense contractors, as buyer ("Buyer"), and committed to supply one (1) unique SigNature DNA provenance mark for Buyer and SigNature DNA ink for marking up to 25,000 electronic components/year, upon Buyer's request through the issuance of a purchase order. For the Buyer, the agreement is an enterprise-wide option to purchase. The term of the agreement commenced on October 3, 2013 and expires October 3, 2023. Buyer has engaged a third-party marker, which third-party marker is and must remain approved by us, to provide certain services to incorporate our ink onto certain electronic components of Buyer. Either party may terminate the agreement in the event of a material breach that is uncured for 30 days. We have received from Buyer one purchase order governed by these terms in the amount of $62,000 thus far. The agreement severely restricts publicity on behalf of both parties.

Competition

The principal markets for our offerings are intensely competitive. We compete with many existing suppliers and new competitors continue to enter the market. Many of our competitors, both in the United States and elsewhere, are major pharmaceutical, chemical and biotechnology companies, or have strategic alliances with such companies, and many of them have substantially greater capital resources, marketing experience, research and development staff, and facilities than we do. Any of these companies could succeed in developing products that are more effective than the products that we have or may develop and may be more successful than us in producing and marketing their existing products. Some of our competitors that operate in the anti-counterfeiting and fraud prevention markets include: American Bank Note Holographics, Inc., Applied Optical Technologies, Authentix, Brandwatch, ChromoLogic LLC, Collectors Universe Inc., Collotype, Data Dot Technology, De La Rue Plc., Digimarc Corp., DNA Technologies, Inc., ID Global, Informium AG, Inksure Technologies, L-1 Identity Solutions, Media Sec Technologies, Nanotech Security Corp, Nokomis, Inc. opSec Security Group plc., SelectaDNA, SmartWater Technology, Inc., Sun Chemical Corp, Tracetag, Prooftag SAS and Yottamark.

Some examples of competing security products include:

fingerprint scanner (a system that scans fingerprints before granting access to secure information or facilities);

voice recognition software (software that authenticates users based on individual vocal patterns);

cornea scanner (a scanner that scans the iris of a user's eye to compare with data in a computer database);

face scanner (a scanning system that uses complex algorithms to distinguish one face from another);

integrated circuit chip and magnetic strips (integrated circuit chips that receive and, if authentic, send a correct electric signal back to the reader, and magnetic strips that contain information, both of which are common components of debit and credit cards);

optically variable microstructures (these include holograms, which display images in three dimensions and are generally difficult to reproduce using advanced color photocopiers and printing techniques, along with other devices with similar features);

elemental taggants and fluorescence (elemental taggants are various unique substances that can be used to mark products and other items, are revealed by techniques such as x-ray fluorescence); and

radioactivity and rare molecules (radioactive substances or rare molecules which are uncommon and readily detected).

We expect competition with our products and services to continue and intensify in the future. We believe competition in our principal markets is primarily driven by:

product performance, features and liability;

price;

timing of product introductions;

ability to develop, maintain and protect proprietary products and technologies;

sales and distribution capabilities;

technical support and service;

brand loyalty;

applications support; and

breadth of product line.

If a competitor develops superior technology or cost-effective alternatives to our products, our business, financial condition and results of operations could be significantly harmed.

Proprietary Rights

We believe that our 23 patents, 47 patent applications, 27 registered trademarks, and 1 trademark application, and our trade secrets, copyrights and other intellectual property rights are important assets for us. Our patents will expire at various times between 2021 and 2025. The duration of our trademark registrations varies from country to country. However, trademarks are generally valid and may be renewed indefinitely as long as they are in use and/or their registrations are properly maintained.

However, there are events that are outside of our control that pose a threat to our intellectual property rights as well as to our products and services. For example, effective intellectual property protection may not be available in every country in which our products and services are distributed. The efforts we have taken to protect our proprietary rights may not be sufficient or effective. Any significant impairment of our intellectual property rights could harm our business or our ability to compete. Protecting our intellectual property rights is costly and time consuming. Any increase in the unauthorized use of our intellectual property could make it more expensive to do business and harm our operating results. Although we seek to obtain patent protection for our innovations, it is possible we may not be able to protect some of these innovations. Given the costs of obtaining patent protection, we may choose not to protect certain innovations that later turn out to be important. There is always the possibility that the scope of the protection gained from one of our issued patents will be insufficient or deemed invalid or unenforceable. We also seek to maintain certain intellectual property as trade secrets. This secrecy could be compromised by third parties, or intentionally or accidentally by our employees, which would cause us to lose the competitive advantage resulting from these trade secrets.

Additionally, litigation regarding patents and other intellectual property rights is extensive in the biotechnology industry. In the event of an intellectual property dispute, we may be forced to litigate. This litigation could involve proceedings instituted by the U.S. Patent and Trademark Office or the International Trade Commission, as well as proceedings brought directly by affected third parties. Intellectual property litigation can be extremely expensive, and these expenses, as well as the consequences should we not prevail, could seriously harm our business. If a third party claims an intellectual property right to technology we use, we might need to discontinue an important product or product line, alter our products and processes, pay license fees or cease our affected business activities. Although we might under these circumstances attempt to obtain a license to this intellectual property, we may not be able to do so on favorable terms, or at all.

Employees

We currently have 51 full-time employees and eight part-time employees, including six in management, nine in research and development, one in life sciences, four in forensics, seven in quality assurance, five in finance and accounting, eight in operations, 11 in sales and marketing, one in human resources, two administrative, two in information services and three in investor relations and communications. We expect to increase our staffing dedicated to sales, manufacturing and production, and forensic authentication services. Expenses related to travel, marketing, salaries, and general overhead will be increased as necessary to support our growth in revenue. In order for us to attract and retain quality personnel, we anticipate we will have to offer competitive salaries and benefits to future employees. We anticipate that it may become desirable to add additional full and/or part time employees to discharge certain critical functions during the next 12 months. This projected increase in personnel is dependent upon our ability to generate revenues and obtain sources of financing. There is no guarantee that we will be successful in raising the funds required or generating revenues sufficient to fund the projected increase in the number of employees. As we continue to expand, we will incur additional costs for personnel. Since June 2012 we have been working with Insperity Inc. to help us manage many of our back-end administrative human resources and payroll responsibilities.

Available Information

We are subject to the informational requirements of the Exchange Act, which requires us to file our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, amendments to such reports and other information with the Securities and Exchange Commission ("SEC"). This information is available at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Information on the operation of the Public Reference Room can be obtained by calling the SEC at 1-800-SEC-0330. Because we file documents electronically with the SEC, you may also obtain this information by visiting the SEC's website at: www.sec.gov. Our website is located at: www.adnas.com.

ITEM 1A. RISK FACTORS.

Because of the following factors, as well as other variables affecting our operating results and financial condition, past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. In addition to the factors discussed elsewhere in this report and our other reports filed with the SEC, the following are important factors that could cause actual results or events to differ materially from those contained in any forward-looking statements made by us or on our behalf. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we deem immaterial also may impair our business operations. If any of the following risks or such other risks actually occurs, our business could be harmed.

Risks Relating to Our Business:

We have a short operating history, a relatively new business model, and have not produced significant revenues. This makes it difficult to evaluate our future prospects and increases the risk that we will not be successful.

We have a short operating history with our current business model, which involves the marketing, sale and distribution of anti-counterfeiting and product authentication solutions. Our operations since inception have produced limited revenues, and may not produce significant revenues in the near term, or at all, which may harm our ability to obtain additional financing and may require us to reduce or discontinue our operations. If we create significant revenues in the future, we expect to derive most of such revenues from the sale of anti-counterfeiting and product authentication solutions, which are immature industries. You must consider our business and prospects in light of the risks and difficulties we will encounter as an early-stage operating company in a new and rapidly evolving industry. We may not be able to successfully address these risks and difficulties, which could significantly harm our business, operating results, and financial condition.

We have a history of losses from operations which may continue, and which may harm our ability to obtain financing and continue our operations.

We incurred operating losses of $12.3 million and $10.2 million for the years ended September 30, 2014, and 2013, respectively. These operating losses have principally been the result of the various costs associated with our selling, general and administrative expenses as we expanded operations, acquired, developed and validated technologies, expanded marketing activities, incurred interest expense on notes we issued to obtain financing and issued warrants with “reset” provisions. Our operations are subject to the risks and competition inherent in a company that moved from the development stage to an operating company. We may not generate sufficient revenues from operations to achieve or sustain profitability on a quarterly, annual or any other basis in the future. Our revenues and profits, if any, will depend upon various factors, including whether our existing products and services or any new products and services we develop will achieve any level of market acceptance. If we continue to incur losses, our accumulated deficit will continue to increase which might significantly impair our ability to obtain additional financing. As a result, our business, results of operations and financial condition would be significantly harmed, and we may be required to reduce or terminate our operations.

We will require additional financing which may require the issuance of additional shares which would dilute the ownership held by our stockholders.

We will need to raise funds through either debt or the sale of our shares in order to achieve our business goals. Any shares issued would further dilute the percentage ownership held by the stockholders. Furthermore, if we raise funds in equity transactions through the issuance of convertible securities which are convertible at the time of conversion at a discount to the prevailing market price, substantial dilution is likely to occur resulting in a material decline in the price of your shares. Our public offering during November 2014 resulted in dilution to investors and future offerings of securities could result in further dilution to investors.

Our operating results could be adversely affected by a reduction in business with our customers that supply parts to the United States Defense Logistics Agency (“DLA”).

We derive a significant amount of revenues from a group of customers that supply FSC 5962 parts to DLA. Taken as a group, these customers were responsible for approximately 45%, 54% and 46% of our revenues for the years ended September 30, 2014, 2013 and 2012, respectively. As of December 15, 2014, DLA will DNA mark all FSC 5962

microcircuits at its Electronic Test Laboratory in Columbus, Ohio and will no longer issue solicitations requiring suppliers to provide DNA marked FSC 5962 microcircuits. On November 13, 2014, we were awarded a contract by DLA to provide DLA with a SigNature DNA mark and related equipment, services and training. We are working with DLA to develop an appropriate transition plan to this new approach. Over time, this change could result in lower revenues and could adversely impact our business, financial condition or results of operations.

Our operating results could be adversely affected by a reduction in business with our significant customers.

Although no customer represented greater than 10% of our total revenues for the fiscal years ended September 30, 2014 or 2013, in the past we have derived a significant amount of revenues from a few customers. An aggregate of 54% of our total revenues for fiscal 2012 was attributable to two customers. In addition, our group of customers who supply FSC 5962 microcircuits to DLA, constituting 45% of our revenues for the fiscal year ended September 30, 2014, will most likely be reduced as a result of DLA’s decision to DNA mark microcircuits at its own laboratory instead of issuing third party solicitations to suppliers. Generally our customers do not have an obligation to make purchases from us and may stop ordering our products and services or may terminate existing orders or contracts at any time with little or no financial penalty. The loss of any of our significant customers, any substantial decline in sales to these customers or any significant change in the timing or volume of purchases by our customers could result in lower revenues and could harm our business, financial condition or results of operations.

If we are unable to obtain additional financing our business operations may be harmed or discontinued.

Our continuation as a going concern is dependent upon our future revenues and our ability to commercialize more products, obtain additional capital and attain profitable operations. We will require additional funds to complete the continued development and commercialization of our products, product manufacturing, and to fund expected additional losses from operations, until revenues are sufficient to cover our operating expenses. If we are unsuccessful in obtaining the necessary additional financing, we will most likely be forced to reduce or terminate our operations.

General economic conditions may adversely affect our business, operating results and financial condition.

A general weakening or decline in the global economy or a period of economic slowdown may have serious negative consequences for our business and operating results. Since our customers incorporate our products into a variety of consumer goods, the demand for our products is subject to worldwide economic conditions and their impact on levels of consumer spending. Some of the factors affecting consumer spending include general economic conditions, unemployment, consumer debt, reductions in net worth, residential real estate and mortgage markets, taxation, energy prices, interest rates, consumer confidence and other macroeconomic factors. During a period of economic weakness or uncertainty, demand for consumer goods incorporating our products may weaken, and current or potential customers may defer purchases of our products. Although global economic conditions have improved somewhat since the extreme economic contraction in fiscal years 2008 and 2009, there is still significant uncertainty in the global economy, and there is no guarantee that the global economy will remain in this improved state.

While credit and financial markets seemed to have stabilized from their period of extreme distress, there can be no assurance that our liquidity will not be affected by changes in the financial markets and the global economy. Moreover, the recent crisis has had a significant material adverse impact on a number of financial institutions and has limited access to capital and credit for many companies. This could, among other things, make it more difficult for us to obtain, or increase our cost of obtaining, capital and financing for our operations. Our access to additional capital may not be available on terms acceptable to us or at all.

Business disruptions could seriously harm our future revenue and financial condition and increase our costs and expenses.

Our operations could be subject to earthquakes, power shortages, telecommunications failures, cyber-attacks or other vulnerabilities in our computer systems, terrorism, water shortages, tsunamis, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics, political or economic instability, and other natural or manmade disasters or business interruptions. The occurrence of any of these business disruptions could seriously harm our revenue and financial condition and increase our costs and expenses.

If our existing products and services are not accepted by potential customers or we fail to introduce new products and services, our business, results of operations and financial condition will be harmed.

There has been limited market acceptance of our botanical DNA encryption, encapsulation, embedment and authentication products and services to date. Some of the factors that will affect whether we achieve market acceptance of our solutions include:

availability, quality and price relative to competitive solutions;

customers’ opinions of the solutions’ utility;

ease of use;

consistency with prior practices;

scientists’ opinions of the solutions’ usefulness; and

general trends in anti-counterfeit and security solutions’ research.

The expenses or losses associated with the continued lack of market acceptance of our solutions will harm our business, operating results and financial condition.

Rapid technological changes and frequent new product introductions are typical for the markets we serve. Our future success may depend in part on continuous, timely development and introduction of new products that address evolving market requirements. We believe successful new product introductions may provide a significant competitive advantage because customers invest their time in selecting and learning to use new products, and are often reluctant to switch products. To the extent we fail to introduce new and innovative products, we may lose any market share we then have to our competitors, which will be difficult or impossible to regain. Any inability, for technological or other reasons, to successfully develop and introduce new products could reduce our growth rate or damage our business. We may experience delays in the development and introduction of products. We may not keep pace with the rapid rate of change in anti-counterfeiting and security products' research, and any new products acquired or developed by us may not meet the requirements of the marketplace or achieve market acceptance.

If we are unable to retain the services of Dr. Hayward or Dr. Liang, we may not be able to continue our operations.

Our success depends to a significant extent upon the continued service of Dr. James A. Hayward, our Chairman, Chief Executive Officer and President, and Dr. Benjamin Liang, our Secretary and Strategic Technology Development Officer. We entered into an employment agreement with Dr. Hayward dated July 11, 2011. We do not have an employment agreement with Dr. Liang. Loss of the services of Drs. Hayward or Liang could significantly harm our business, results of operations and financial condition. We do not maintain key-man insurance on the lives of Drs. Hayward or Liang.

The markets for our anti-counterfeiting and product authentication solutions are very competitive, and we may be unable to continue to compete effectively in these industries in the future.

The principal markets for our anti-counterfeiting and product authentication solutions are intensely competitive. Many of our competitors, both in the United States and elsewhere, are major pharmaceutical, chemical and biotechnology companies, or have strategic alliances with such companies, and many of them have substantially greater capital resources, marketing experience, research and development staff, and facilities than we do. Any of these companies could succeed in developing products that are more effective than the products that we have or may develop and may be more successful than us in producing and marketing their existing products. Some of our competitors that operate in the anti-counterfeiting and fraud prevention markets include: American Bank Note Holographics, Inc., Applied Optical Technologies, Authentix, Collectors Universe Inc., Brandwatch, Collotype, Data Dot Technology, De La Rue Plc., Digimarc Corp., DNA Technologies, Inc., ID Global, Informium AG, Inksure Technologies, Kodak, L-1 Identity Solutions, Media Sec Technologies, opSec Security Group plc., SelectaDNA, SmartWater Technology, Inc., Sun Chemical Corp, Tracetag, Prooftag SAS and Yottamark.

We expect this competition to continue and intensify in the future. Competition in our markets is primarily driven by:

product performance, features and liability;

price;

timing of product introductions;

ability to develop, maintain and protect proprietary products and technologies;

sales and distribution capabilities;

technical support and service;

brand loyalty;

applications support; and

breadth of product line.

If a competitor develops superior technology or cost-effective alternatives to our products, our business, financial condition and results of operations could be significantly harmed.

We need to expand our sales, marketing and support organizations and our distribution arrangements to increase market acceptance of our products and services.

We currently have a limited number of sales, marketing, customer service and support personnel and will need to increase our staff to generate a greater volume of sales and to support any new customers or the expanding needs of existing customers. The employment market for sales, marketing, customer service and support personnel in our industry is very competitive, and we may not be able to hire the kind and number of sales, marketing, customer service and support personnel we are targeting. Our inability to hire qualified sales, marketing, customer service and support personnel may harm our business, operating results and financial condition. While we have entered into a limited number of agreements with distributors, we may not be able to sufficiently build out a distribution network or enter into arrangements with qualified distributors on acceptable terms or at all. If we are not able to develop greater distribution capacity, we may not be able to generate sufficient revenue to support our operations.

If a manufacturer fails to use acceptable labor practices, we might have delays in shipments or face joint liability for violations, resulting in decreased revenue and increased expenses.

While we require our independent manufacturers to operate in compliance with applicable laws and regulations, we have no control over their ultimate actions. While our internal and vendor operating guidelines promote ethical business practices and our staff and buying agents periodically visit and monitor the operations of our independent manufacturers, we do not control these manufacturers or their labor practices. The violation of labor or other laws by our independent manufacturers, or by one of our licensing partners, or the divergence of an independent manufacturer’s or licensing partner’s labor practices from those generally accepted as ethical in the United States, could interrupt, or otherwise disrupt the shipment of finished products to us or damage our reputation. Any of these, in turn, could have a material adverse effect on our financial condition and results of operations, such as the loss of potential revenue and incurring additional expenses.

Our research and development effort for new products may be unsuccessful.

We incur research and development expenses to develop new products and technologies in an effort to maintain our competitive position in a market characterized by rapid rates of technological advancement. Our research and development efforts are subject to unanticipated delays, expenses and technical problems. There can be no assurance that any of these products or technologies will be successfully developed or that, if developed, will be commercially successful. In the event that we are unable to develop commercialized products from our research and development efforts or we are unable or unwilling to allocate amounts beyond our currently anticipated research and development investment, we could lose our entire investment in these new products and technologies. Any failure to translate research and development expenditures into successful new product introduction could have an adverse effect on our business.

Failure to license new technologies could impair sales of our existing products or any new product development we undertake in the future.

To generate broad product lines, it is advantageous to sometimes license technologies from third parties rather than depend exclusively on the development efforts of our own employees. As a result, we believe our ability to license new technologies from third parties may be important to our ability to offer new products. In addition, from time to time we are notified or become aware of patents held by third parties that are related to technologies we are selling or may sell in the future. After a review of these patents, we may decide to seek a license for these technologies from these third parties. There can be no assurance that we will be able to successfully identify new technologies developed by others. Even if we are able to identify new technologies of interest, we may not be able to negotiate a license on favorable terms, or at all.

Our failure to manage our growth in operations and acquisitions of new product lines and new businesses could harm our business.

The recent growth in our operations could place a significant strain on our current management resources. To manage such growth, we may need to improve our:

operations and financial systems;

procedures and controls; and

training and management of our employees.

Our future growth, if any, may be attributable to acquisitions of new product lines and new businesses. For example, during fiscal 2013, we completed the purchase of certain assets and technology from RedWeb Technologies Limited relating to its forensic tagging security system. Future acquisitions, if successfully consummated, would likely create increased working capital requirements, which would likely precede by several months any material contribution of an acquisition to our net income. Our failure to manage growth or future acquisitions successfully could seriously harm our operating results. Also, acquisition costs could cause our quarterly operating results to vary significantly. Furthermore, our stockholders would be diluted if we financed the acquisitions by incurring convertible debt or issuing securities.

A percentage of our sales occur outside of the U.S. As a result, we are subject to the economic, political, regulatory and other risks of international operations.

For fiscal 2014 and 2013, 33% and 38%, respectively, of our revenue was from customers located outside of the U.S. We believe that the revenue from the sale of our products outside the U.S. will continue to grow in the near future. We intend to expand our international operations to the extent that suitable opportunities become available. Our foreign operations and sales could be adversely affected as a result of:

nationalization of private enterprises and assets;

political or economic instability in certain countries and regions;

differences in foreign laws, including increased difficulties in protecting intellectual property and uncertainty in enforcement of contract rights;

the possibility that foreign governments may adopt regulations or take other actions that could directly or indirectly harm our business and growth strategy;

credit risks;

currency fluctuations;

tariff and tax increases;

export and import restrictions and restrictive regulations of foreign governments;

shipping products during times of crisis or wars; and

other risks inherent in foreign operations.

We are subject to numerous regulatory, legal, operational, and other risks as a result of our international operations which could adversely impact our businesses in many ways.

As a U.S. company, we are required to comply with the economic sanctions and embargo programs administered by Office of Foreign Assets Control and similar multi-national bodies and governmental agencies worldwide, and the Foreign Corrupt Practices Act ("FCPA"). A violation of a sanction or embargo program or of the FCPA or similar laws prohibiting certain payments to governmental officials, such as the U.K. Bribery Act, could subject us, and individual employees, to a regulatory enforcement action as well as significant civil and criminal penalties which could adversely impact our business and operations.

Failure to attract and retain qualified scientific, production and managerial personnel could harm our business.

Recruiting and retaining qualified scientific and production personnel to perform and manage prototype, sample, and product manufacturing and business development personnel to conduct business development are critical to our success. In addition, our desired growth and expansion into areas and activities requiring additional expertise, such as clinical testing, government approvals, production, sales and marketing will require the addition of new management personnel and the development of additional expertise by existing management personnel. Because the industry in which we compete is very competitive, we face significant challenges attracting and retaining a qualified personnel base. Although we believe we have been and will be able to attract and retain these personnel, we may not be able to continue to successfully attract qualified personnel. The failure to attract and retain these personnel or, alternatively, to develop this expertise internally would harm our business since our ability to conduct business development and manufacturing will be reduced or eliminated, resulting in lower revenues. We generally do not enter into employment agreements requiring our employees to continue in our employment for any period of time.

Our intellectual property rights are valuable, and any inability to protect them could reduce the value of our products, services and brand.

Our patents, trademarks, trade secrets, copyrights and all of our other intellectual property rights are important assets for us. There are events that are outside of our control that pose a threat to our intellectual property rights as well as to our products and services. For example, effective intellectual property protection may not be available in every country in which our products and services are distributed. The efforts we have taken to protect our proprietary rights may not be sufficient or effective. Any significant impairment of our intellectual property rights could harm our business or our ability to compete. Protecting our intellectual property rights is costly and time consuming. Any increase in the unauthorized use of our intellectual property could make it more expensive to do business and harm our operating results. Although we seek to obtain patent protection for our innovations, it is possible we may not be able to protect some of these innovations. Given the costs of obtaining patent protection, we may choose not to protect certain innovations that later turn out to be important. There is always the possibility that the scope of the protection gained from one of our issued patents will be insufficient or deemed invalid or unenforceable. We also seek to maintain certain intellectual property as trade secrets. The secrecy could be compromised by third parties, or intentionally or accidentally by our employees, which would cause us to lose the competitive advantage resulting from these trade secrets.

Intellectual property litigation could harm our business.

Litigation regarding patents and other intellectual property rights is extensive in the biotechnology industry. In the event of an intellectual property dispute, we may be forced to litigate. This litigation could involve proceedings instituted by the U.S. Patent and Trademark Office or the International Trade Commission, as well as proceedings brought directly by affected third parties. Intellectual property litigation can be extremely expensive, and these expenses, as well as the consequences should we not prevail, could seriously harm our business.

If a third party claims an intellectual property right to technology we use, we might need to discontinue an important product or product line, alter our products and processes, pay license fees or cease our affected business activities. Although we might under these circumstances attempt to obtain a license to this intellectual property, we may not be able to do so on favorable terms, or at all. Furthermore, a third party may claim that we are using inventions covered by the third party's patent rights and may go to court to stop us from engaging in our normal operations and activities, including making or selling our product candidates. These lawsuits are costly and could affect our results of operations and divert the attention of managerial and technical personnel. A court may decide that we are infringing the third party's patents and would order us to stop the activities covered by the patents. In addition, a court may order us to pay the other party damages for having violated the other party's patents. The biotechnology industry has produced a proliferation of patents, and it is not always clear to industry participants, including us, which patents cover various types of products or methods of use. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform. If we are sued for patent infringement, we would need to demonstrate that our products or methods of use either do not infringe the patent claims of the relevant patent and/or that the patent claims are invalid, and we may not be able to do this. Proving invalidity, in particular, is difficult since it requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents.

Because some patent applications in the United States may be maintained in secrecy until the patents are issued, because patent applications in the United States and many foreign jurisdictions are typically not published until eighteen months after filing, and because publications in the scientific literature often lag behind actual discoveries, we cannot be certain that others have not filed patent applications for technology covered by our or our licensor's issued patents or pending applications or that we or our licensors were the first to invent the technology. During the ordinary course of our business, we do not conduct "prior art" searches before filing a patent application. Our competitors may have filed, and may in the future file, patent applications covering technology similar to ours. Any such patent application may have priority over our or our licensors' patent applications and could further require us to obtain rights to issued patents covering such technologies. If another party has filed a United States patent application on inventions similar to ours, we may have to participate in an interference proceeding declared by the United States Patent and Trademark Office to determine priority of invention in the United States. The costs of these proceedings could be substantial, and it is possible that such efforts would be unsuccessful, resulting in a loss of our United States patent position with respect to such inventions.

Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise the funds necessary to continue our operations.

Accidents related to hazardous materials could adversely affect our business.

Some of our operations require the controlled use of hazardous materials for chemical reactions and synthesis. These materials are common to molecular/biological/chemical laboratories and require no special handling or regulation. Although we believe our safety procedures comply with the standards prescribed by federal, state, local and foreign regulations, the risk of accidental contamination of property or injury to individuals from these materials cannot be completely eliminated. In the event of an accident, we could be liable for any damages that result, which could seriously damage our business and results of operations.

Potential product liability claims could affect our earnings and financial condition.

We face a potential risk of liability claims based on our products and services. Though we have product liability insurance coverage which we believe is adequate, we may not be able to maintain this insurance at reasonable cost and on reasonable terms. We also cannot assure that this insurance, if obtained, will be adequate to protect us against a product liability claim, should one arise. In the event that a product liability claim is successfully brought against us, it could result in a significant decrease in our liquidity or assets, which could result in the reduction or termination of our business.

Litigation generally could affect our financial condition and results of operations.

We generally may be subject to claims made by and required to respond to litigation brought by customers, former employees, former officers and directors, former distributors and sales representatives, former consultants and vendors and service providers. We have faced such claims and litigation in the past and we cannot assure that we will not be subject to claims in the future. In the event that a claim is successfully brought against us, considering our lack of material revenue and the losses our business has incurred for the period from our inception to September 30, 2014, this could result in a significant decrease in our liquidity or assets, which could result in the reduction or termination of our business.

Risks Relating to Our Common Stock:

There are a large number of shares of common stock underlying our outstanding options and warrants and the sale of these shares may depress the market price of our common stock and cause immediate and substantial dilution to our existing stockholders.

As of December 11, 2014, we had 17,309,702 shares of common stock issued and outstanding and outstanding options and warrants to purchase 6,917,232 shares of common stock. The issuance of shares upon exercise of outstanding options and warrants will cause immediate and substantial dilution to the interests of other stockholders.

We may require additional financing in the future, which may not be available or, if available, may be on terms that cause a decline in the value of our securities.

If we raise capital in the future by issuing additional securities, investors may experience a decline in the value of their securities.

If we fail to comply with the continuing listing standards of The NASDAQ Capital Market, our securities could be delisted.

Our common stock and warrants are listed on the NASDAQ Capital Market under the symbols “APDN” and “APDNW,” respectively. For our common stock and warrants to continue to be listed on the NASDAQ Capital Market, we must meet the current NASDAQ Capital Market continued listing requirements. If we were unable to meet these requirements, including, but not limited to, requirements to obtain shareholder approval of a transaction other than a public offering involving the sale or issuance equal to 20% or more of our common stock at a price that is less than the market value of our common stock, our common stock and warrants could be delisted from the NASDAQ Capital Market. If our securities were to be delisted from the NASDAQ Capital Market, our securities could begin to trade on the over-the-counter bulletin board or on the OTC Link, as the case may be. In such event, our securities could once again be subject to the “penny stock” rules which among other things require brokers or dealers to approve investors’ accounts, receive written agreements and determine investor suitability for transactions and disclose risks relating to investing in the penny stock market. Any such delisting of our securities could have an adverse effect on the market price of, and the efficiency of the trading market for our securities, not only in terms of the number of shares that can be bought and sold at a given price, but also through delays in the timing of transactions and less coverage of us by securities analysts, if any. Also, if in the future we were to determine that we need to seek additional equity capital, it could have an adverse effect on our ability to raise capital in the public or private equity markets.

Any material weaknesses in our internal control over financing reporting in the future could adversely affect investor confidence, impair the value of our common stock and increase our cost of raising capital.

Any future failure to remedy deficiencies in our internal control over financial reporting that may be discovered or our failure to implement new or improved controls, or difficulties encountered in the implementation of such controls, could harm our operating results, cause us to fail to meet our reporting obligations or result in material misstatements in our financial statements. Any such failure could, in turn, affect the future ability of our management to certify that internal control over our financial reporting is effective. Inferior internal control over financial reporting could also subject us to the scrutiny of the SEC and other regulatory bodies which could cause investors to lose confidence in our reported financial information and could subject us to civil or criminal penalties or shareholder litigation, which could have an adverse effect on our results of operations and the trading price of our common stock.

In addition, if we or our independent registered public accounting firm identify deficiencies in our internal control over financial reporting, the disclosure of that fact, even if quickly remedied, could reduce the market’s confidence in our financial statements and harm our share price. Furthermore, deficiencies could result in future non-compliance with Section 404 of the Sarbanes-Oxley Act of 2002. Such non-compliance could subject us to a variety of administrative sanctions, including review by the SEC or other regulatory authorities.

We may be subject to claims for damages in connection with certain sales of shares of our common stock in the open market.

There may have been inadvertent violations of federal and state securities laws in connection with certain sales of shares of our common stock in the open market pursuant to a registration statement on Form S-3 that we had filed to cover the resale of shares issued or to be issued that was declared effective by the Securities and Exchange Commission on July 31, 2013. On December 20, 2013, we filed our annual report on Form 10-K for the fiscal year ended September 30, 2013 (the “Original 2013 Form 10-K”) which did not include the auditor attestation report on internal control over financial reporting required by Section 404(b) of Sarbanes-Oxley (the “Auditor Attestation Report”). On May 1, 2014, we filed a Form 10-K/A amendment to the Original 2013 Form 10-K in order to include the

Auditor Attestation Report.

There were approximately three months when sales of shares may have occurred in open market transactions pursuant to our registration statement when the use thereof should have been suspended. Any such sales may have violated Section 5 or Section 12(a)(1) of the Securities Act and, as a result, we may be liable for claims for damages. In addition, the Securities and Exchange Commission and relevant state regulators could impose monetary fines or other sanctions on us as provided under relevant federal and state securities laws. The amount of such damages and penalties, if any, cannot be determined at this time. If the payment of damages or fines is significant, it could have a material, adverse effect on our cash flow, financial condition or prospects.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES.

On June 14, 2013, we entered into an operating lease agreement for a larger facility for our new corporate headquarters, located at the Long Island High Technology Incubator (“LIHTI”), which is located on the campus of Stony Brook University at 50 Health Sciences Drive, Stony Brook, NY 11790. The lease is for a 30,000 square foot building. The term of the lease commenced on June 15, 2013 and expires on May 31, 2016, with the option to extend the lease for two additional three-year periods. We also have operating leases for a laboratory in Huddersfield, England, which is currently inactive and Calverton, New York. The leases for both of these spaces are currently on a month to month basis.

ITEM 3. LEGAL PROCEEDINGS.

From time to time, we may become involved in various lawsuits and legal proceedings which arise in the ordinary course of business. However, litigation is subject to inherent uncertainties, and an adverse result in these or other matters may arise from time to time that may harm our business. We are currently not aware of any such legal proceedings that we believe will have, individually or in the aggregate, a material adverse effect on our business, financial condition or operating results.

SmartWater, Ltd. v. Applied DNA Sciences, Inc. (Civil Action No. 12-05731-JS-AKT, Eastern District of New York)

On August 24, 2012, SmartWater Limited ("SmartWater") filed a complaint for patent infringement against us in the United States District Court for the Southern District of Florida. It alleged that we infringed two of SmartWater's patents. Upon our motion, the case was transferred to the United States District Court for the Eastern District of New York. On June 26, 2013, SmartWater moved for leave to file an amended complaint. By memorandum and order dated September 27, 2013, the Court held that SmartWater had adequately stated claims for direct infringement, but dismissed the claims for contributory infringement with respect to both patents and induced infringement with respect to one patent.

On June 11, 2014, SmartWater filed a motion for an order dismissing its remaining patent infringement claims against us with prejudice. On July 18, 2014, we filed a request for an award of attorneys' fees. On September 29, 2014, the Court dismissed SmartWater's claims with prejudice and denied our request for attorneys' fees. As part of the dismissal, the Court ordered that SmartWater is permanently barred from suing us or any other entity with respect to the patents at issue as they relate to our products or services. SmartWater recovered nothing from us as a result of its suit.

ITEM 4. MINE SAFETY DISCLOSURES.

Not applicable.

PART II

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

Market Information

Our common stock was quoted on The Over The Counter Market Group ("OTCQB") maintained by the National Association of Securities Dealers under the symbol "APDN" through November 14, 2014 and was listed on The NASDAQ Capital Market under the symbol "APDN" on November 17, 2014. Our warrants were listed on The NASDAQ Capital Market under the symbol "APDNW" on November 17, 2014. There is no certainty that the common stock and warrants will continue to be listed or that any liquidity exists for our stockholders.

The following table sets forth the quarterly quotes of high and low prices for our common stock on the OTCQB during the fiscal years ended September 30, 2013 and 2014. The following high and low sales prices of our common stock have been adjusted retroactively to reflect a one-for-60 reverse stock split that was effective on October 29, 2014.

	Fiscal 2013		Fiscal 2014	
	High	Low	High	Low
First Quarter	$ 17.40	$ 10.20	$ 11.40	$ 4.80
Second Quarter	$ 13.80	$ 7.80	$ 10.80	$ 7.20
Third Quarter	$ 15.60	$ 10.20	$ 8.40	$ 6.00
Fourth Quarter	$ 12.00	$ 5.40	$ 7.80	$ 5.40

Holders

As of December 11, 2014, we had approximately 681 holders of our common stock and 3 holders of our warrants. The number of record holders was determined from the records of our transfer agent and does not include beneficial owners of common stock whose shares are held in the names of various security brokers, dealers, and registered clearing agencies. The transfer agent of our common stock and warrants is American Stock Transfer & Trust Company, 6201 15th Avenue, Brooklyn, New York 11219.

Equity Compensation Plan Information

In 2005, the Board of Directors and the holders of a majority of the outstanding shares of Common Stock approved the 2005 Incentive Stock Plan. In 2007, 2008 and 2012, the Board of Directors and holders of a majority of the outstanding shares of Common Stock approved various increases in the number of shares of Common Stock that can be issued as stock awards and stock options thereunder to an aggregate of 5,833,334 shares and the number of shares of Common Stock that can be covered by awards made to any participant in any calendar year to 833,334 shares.

The 2005 Incentive Stock Plan is designed to retain directors, executives, and selected employees and consultants by rewarding them for making contributions to our success with an award of options to purchase shares of Common Stock. As of September 30, 2014, a total of 211,252 shares have been issued and options to purchase 3,350,780 shares have been granted under the 2005 Incentive Stock Plan.

Dividends

We have never declared or paid any cash dividends on our common stock. We do not anticipate paying any cash dividends to stockholders in the foreseeable future. In addition, any future determination to pay cash dividends will be at the discretion of the Board of Directors and will be dependent upon our financial condition, results of operations, capital requirements, and such other factors as the Board of Directors deem relevant.

Recent Sales of Unregistered Securities

On June 3, 2014, we closed a private placement of our Common Stock and warrants to purchase Common Stock with a group of investors, including members of our senior management team and the Board of Directors, pursuant to subscription agreements for gross proceeds of $2,145,956 (“Private placement”). We issued and sold 312,257 shares of our Common Stock at a purchase price of $6.87 per share and warrants to purchase 312,257 shares of Common Stock. The purchase price of the Common Stock represented a 5% discount to the volume weighted average closing price of the Common Stock from May 13, 2014 to May 16, 2014, which ranged from $6.93 to $7.47 per share during the period. The Warrants are exercisable at a price of $8.25 per share (representing a 20% premium to the Purchase Price) for a period of one year and do not have cashless exercise provisions. The Common Stock purchased as well as the Common Stock to be issued upon exercise of the Warrants will be subject to the six month holding period provisions of Rule 144.

On July 8, 2014, we closed on an additional subscription agreement under this private placement, with the same terms as disclosed above. We issued and sold 1,500 shares of its Common Stock and warrants to purchase 1,500 shares of Common Stock for total proceeds of $10,308.

As disclosed in Note E to the accompanying consolidated financial statements, on November 11, 2014, Dr. Hayward and the other individual agreed to exchange in reliance upon the exemption from registration provided by Section 3(a)(9) of the Securities Act their respective 12.5% Promissory Notes dated as of September 11, 2014 (including principal and accrued interest thereon) for 315,171 shares of common stock and warrants to purchase 315,171 shares of common stock, in the case of Dr. Hayward, and 252,137 shares of common stock and warrants to purchase 252,137 shares of common stock, in the case of the other individual, at $3.25, the public offering price per share and warrant in our underwritten public offering, which closed on November 20, 2014. The Common Stock purchased as well as the Common Stock to be issued upon exercise of the Warrants will be subject to the six month holding period and other provisions of Rule 144.

Unless otherwise indicated, the foregoing issuances of Common Stock and warrants were exempt from registration under the Securities Act, pursuant to the exemption from registration provided by Section 4(a)(2) of the Securities Act and by Rule 506 of Regulation D promulgated under the Securities Act. Each investor represented that it was an “accredited investor” as that term is defined in Rule 501 of Regulation D.

ITEM 6. SELECTED FINANCIAL DATA.

The selected historical financial data presented below under the heading “Consolidated Statement of Operations Data” and “Per Share Data” for the fiscal years ended September 30, 2014, 2013 and 2012 and selected financial data presented below under the heading “Consolidated Balance Sheet Data” as of September 30, 2014 and 2013 have been derived from, and are qualified by reference to, our audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K. The selected historical financial data presented below under the heading “Consolidated Statement of Operations Data” and “Per Share Data” for the years ended September 30, 2011 and 2010 and the selected historical financial data presented below under the heading “Consolidated Balance Sheet Data” as of September 30, 2012, 2011 and 2010 have been derived from, and are qualified by reference to, our audited consolidated financial statements which are not included in this Annual Report on Form 10-K.

The data set forth below should be read in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our audited consolidated financial statements and the related notes thereto included elsewhere in this Annual Report on Form 10-K.

Consolidated Statements of Operations Data

	Years Ended September 30,				
	2014	2013	2012	2011	2010
Revenues:	$ 2,721,224	$ 2,036,222	$ 1,854,694	$ 968,848	$ 519,844
Operating expenses:					
Selling, general and administrative	13,249,753	11,198,505	7,615,734	8,388,873	7,189,020
Research and development	1,300,750	692,480	432,669	268,876	75,961
Depreciation and amortization	442,262	321,074	313,940	367,556	371,914
Total operating expenses	14,992,765	12,212,059	8,362,343	9,025,305	7,636,895
LOSS FROM OPERATIONS	(12,271,541)	(10,175,837)	(6,507,649)	(8,056,457)	(7,117,051)

Other income (expense):					
Interest income (expense), net	(11,029)	1,272	(643,063)	(2,458,667)	(792,549)
Other (expense) income, net	123,914	(3,761)	—	—	—
Loss on change in fair value of warrant liability	(908,005)	(7,508,146)	—	—	—
(Loss) income before provision for income taxes	(13,066,661)	(17,686,472)	(7,150,712)	(10,515,124)	(7,909,600)
Income taxes (benefit)	—	—	—	—	—
NET (LOSS) INCOME	$ (13,066,661)	$ (17,686,472)	$ (7,150,712)	$ (10,515,124)	$ (7,909,600)
Net (loss) income per share:					
Basic and diluted	$ (0.97)	$ (1.51)	$ (0.74)	$ (1.67)	$ (1.58)
Weighted average common shares outstanding:					
Basic and diluted	13,515,518	11,730,879	9,601,525	6,280,563	5,005,882

Consolidated Balance Sheet Data

	As of September 30,				
	2014	2013	2012	2011	2010
Current assets:					
Cash and cash equivalents	$ 1,393,132	$ 6,360,301	$ 724,782	$ 2,747,294	$ 17,618
Accounts receivable, net of allowance	834,818	672,638	296,994	208,587	63,029
Prepaid expenses	135,365	174,096	80,037	76,290	161,456
Total current assets	2,363,315	7,207,035	1,101,813	3,032,171	242,103
Noncurrent assets	1,142,742	1,167,931	247,121	471,385	1,171,211
Total assets	$ 3,506,057	$ 8,374,966	1,348,934	$ 3,503,556	$ 1,413,314
Current liabilities:					
Accounts payable and accrued liabilities	$ 1,494,759	$ 966,977	$ 592,009	$ 768,061	$ 967,550
Promissory notes payable	1,800,000	—	—	—	
Advances from Officers	—	—	—	—	50,000
Convertible notes payable, net	—	—	—	3,730,880	1,774,080
Deferred revenue	583,362	148,503	—	—	—
Total current liabilities	3,878,121	1,115,480	592,009	4,498,941	2,791,630
Convertible note payable-related party, net 2013	—	—	—	—	219,714
Warrant liability	1,096,412	2,643,449	—	—	—
Total liabilities	4,974,533	3,758,929	592,009	4,498,941	3,011,344
Preferred stock	—	—	—	—	—
Common stock	13,937	13,109	10,770	7,889	5,773
Additional paid in capital	198,277,859	191,296,539	169,753,294	160,853,153	149,737,500
Accumulated deficit	(199,760,272)	(186,693,611)	(169,007,139)	(161,856,427)	(151,341,303)
Total stockholders' (deficit) equity	(1,468,476)	4,616,087	756,925	(995,385)	(1,598,030)
Total Liabilities and Stockholders' (Deficit) Equity	$ 3,506,057	8,374,966	$ 1,348,934	$ 3,503,556	$ 1,413,314

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

The following discussion should be read in conjunction with our Consolidated Financial Statements and Notes thereto, included elsewhere within this report. The Annual Report on Form 10-K contains forward-looking statements including statements using terminology such as "can", "may", "believe", "designated to", "will", "expect", "plan", "an "estimate", "potential" or "continue", or the negative thereof or other comparable terminology regarding beliefs, plans, expectations or intentions regarding the future. You should read statements that contain these words carefully because they:

discuss our future expectations;

contain projections of our future results of operations or of our financial condition; and

state other “forward-looking” information.

We believe it is important to communicate our expectations. However, forward looking statements involve risks and uncertainties and our actual results and the timing of certain events could differ materially from those discussed in forward-looking statements as a result of certain factors, including those set forth under “Risk Factors,” “Business” and elsewhere in this report. All forward-looking statements and risk factors included in this document are made as of the date hereof, based on information available to us as of the date thereof, and we assume no obligations to update any forward-looking statement or risk factor, unless we are required to do so by law.

All warrant, option, share and per share information in this report gives retroactive effect to a one-for-60 reverse stock split that was effective on October 29, 2014.

Introduction

Using biotechnology as a forensic foundation, we create unique security solutions addressing the challenges of modern commerce. Whether working in supply chain security, brand protection or law enforcement applications, it is our goal to help establish secure and flourishing environments that foster quality, integrity and success. With secure taggants, high-resolution DNA authentication, and comprehensive reporting, our botanical DNA-based technologies are designed to deliver what we believe to be the greatest levels of security, deterrence and legal recourse strength.

General

To date, the substantial portion of our revenues has been generated from sales of Signature DNA and fiberTyping, our principal anti-counterfeiting and product authentication solutions. We expect to continue to grow revenues from sales of our SigNature DNA platform ingredient, our fibertyping, DNAnet, and digitalDNA offerings and the Counterfeit Prevention Authentication Program. We have continued to incur expenses in expanding our laboratory and office facilities and increasing our personnel to meet current and anticipated future demand. We have limited sources of liquidity. We have developed or are currently attempting to develop business in the following target markets: microcircuits and other electronics, cash-in-transit (transport and storage of banknotes), textiles and apparel, automotive, printing and packaging, homeland security, law enforcement and home asset marking, identity cards and other secure documents, industrial materials, agrochemicals, pharmaceuticals, consumer products, food and beverage, fine wine, and art and collectibles. Our developments in the semiconductor authentication, cash-in-transit, polyolefins, and textile and apparel authentication have contributed to the increase in our revenues. We intend to pursue both domestic and international sales opportunities in each of these vertical markets.

Critical Accounting Policies

Financial Reporting Release No. 60, published by the SEC, recommends that all companies include a discussion of critical accounting policies used in the preparation of their financial statements. While all these significant accounting policies impact our financial condition and results of operations, we view certain of these policies as critical. Policies determined to be critical are those policies that have the most significant impact on our consolidated financial statements and require management to use a greater degree of judgment and estimates. Actual results may differ from those estimates.

We believe that given current facts and circumstances, it is unlikely that applying any other reasonable judgments or estimate methodologies would cause a material effect on our condensed consolidated results of operations, financial position or liquidity for the periods presented in this report.

The accounting policies identified as critical are as follows:

Revenue recognition;

Equity based compensation;

Fair value of financial instruments.

Revenue Recognition

We recognize revenue in accordance with Accounting Standards Codification (“ASC”) 605, Revenue Recognition (“ASC 605”). ASC 605 requires that four basic criteria must be met before revenue can be recognized: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred and/or service has been performed; (3) the selling price is fixed and determinable; and (4) collectability is reasonably assured. Determination of criteria (3) and (4) are based on management’s judgments regarding the fixed nature of the selling prices of the products delivered or services provided and the collectability of those amounts. Provisions for allowances and other adjustments are provided for in the same period the related sales are recorded. We defer any revenue for which the product has not been delivered, service hasn’t been provided, or is subject to refund until such time that we and the customer jointly determine that the product has been delivered, service has been provided, or no refund will be required. At September 30, 2014, and 2013, we

recorded deferred revenue of $583,362 and $148,503, respectively.

Revenue arrangements with multiple components are divided into separate units of accounting if certain criteria are met, including whether the delivered component has stand-alone value to the customer. Consideration received is allocated among the separate units of accounting based on their respective selling prices. The selling price for each unit is based on vendor-specific objective evidence, or VSOE, if available, third party evidence if VSOE is not available, or estimated selling price if neither VSOE nor third party is available. The applicable revenue recognition criteria are then applied to each of the units.

Revenue for government contract awards, which supports our development efforts on specific projects, is recognized as milestones under the contract are achieved as per the contract. We recognized revenue of approximately $156,452, $100,000 and $0 from these contracts during the fiscal years ended September 30, 2014, 2013 and 2012, respectively.

Equity Based Compensation

We follow Accounting Standards Codification subtopic 718, Compensation (“ASC 718”) which requires all share-based payments to employees, including grants of employee stock options, and consultants, to be recognized in the statement of operations based on their fair values.

Fair Value of Financial Instruments

The valuation techniques utilized are based upon observable and unobservable inputs. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect internal market assumptions. These two types of inputs create the following fair value hierarchy:

Level 1 — Quoted prices in active markets for identical assets or liabilities.

Level 2 — Observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the related asset or liabilities.

Level 3 — Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of assets or liabilities.

We utilize observable market inputs (quoted market prices) when measuring fair value whenever possible.

For fair value measurements categorized within Level 3 of the fair value hierarchy, our accounting and finance department, who reports to the Chief Financial Officer, determine its valuation policies and procedures. The development and determination of the unobservable inputs for Level 3 fair value measurements and fair value calculations are the responsibility of our accounting and finance department and are approved by the Chief Financial Officer.

Use of Estimates

In preparing financial statements in conformity with accounting principles generally accepted in the United States of America, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and revenue and expenses during the reporting period. Actual results could differ from those estimates.

Comparison of the Year Ended September 30, 2014 to the Year Ended September 30, 2013

Revenues

For the fiscal years ended September 30, 2014 and 2013, we generated $2,721,224 and $2,036,222 in revenues from operations, respectively. The increase in revenues of $685,002 or 33.6% for the twelve months ended September 30, 2014 was primarily caused by revenue recognized of $219,250 from a $350,000 term sheet entered into with Borealis AG, a provider of polyolefins where we agreed to cooperate in the development and supply of markers and related additives for polyolefin products. The increase in revenue is also related to an increase in sales to suppliers of the DLA of approximately $162,000 from renewals of existing contracts as well as the signing of new contracts. Revenue from military contract awards increased approximately $56,000 for the fiscal year ended September 30, 2014 as compared to the same period in the prior year. To a smaller extent, the revenue increase is also attributable to an increase in fiberTyping sales of approximately $28,000.

Costs and Expenses

Selling, General and Administrative

Selling, general and administrative expenses for the fiscal years ended September 30, 2014 increased by $2,051,248 or 18.3% to $13,249,753 from $11,198,505 in the same period in 2013. The increase is primarily attributable to an increase in payroll of approximately $1.4 million due to an increase in fulltime employees from 47 as of September 30, 2013 to 51 fulltime employees as of September 30, 2014 and is also due to a full year of payroll expense during fiscal 2014 for the increase in headcount during fiscal 2013. The increase is also due to shares of common stock issued to a business strategy consultant for settlement of their fees during the fiscal year ended September 30, 2014 for $337,501. Rent and related utilities expense increased by approximately $273,000 as a result of our larger office space and our now paying utilities as compared to them being included as part of rent during the first half of the fiscal year ended September 30, 2013. Legal fees also increased by approximately $234,000, related to legal fees incurred for the SmartWater litigation, as disclosed in footnote K of the accompanying consolidated financial statements.

Research and Development

Research and development expenses increased by $608,270 or 87.8% for the fiscal year ended September 30, 2014 compared to the same period in 2013 to $1,300,750 from $692,480. This increase is primarily due to the increased laboratory space with our new corporate headquarters, which resulted in additional expenses of approximately $150,000, as well as an increase in research and development to support expansion of our business and markets of approximately $455,000. In particular we have multiple workstreams in progress toward a launch of new products for field detection and rapid reading of optical marks which use the SigNature DNA ingredient.

Depreciation and Amortization

In the fiscal year ended September 30, 2014, depreciation and amortization increased by $121,188 or 37.7% compared to the same period in 2013 from $321,074 for the fiscal year ended September 30, 2013 to $442,262 for the fiscal year ended September 30, 2014. The increase is attributable to depreciation and amortization expense for the leasehold improvements and lab equipment purchased during the second half of the fiscal year ended September 30, 2013 related to the relocation of our corporate offices. The increase also relates to amortization for the intellectual property purchased from RedWeb Technologies during May 2013 and purchases of lab and computer equipment during the fiscal year ended September 30, 2014 of approximately $220,000

Total Operating Expenses

Total operating expenses increased to $14,992,765 for the fiscal year ended September 30, 2014 from $12,212,059 in the same period of 2013, or an increase of $2,780,706 or 22.8%, primarily attributable to an increase in salaries and in R&D expenditures, as more fully described above.

Interest (Expenses) Income

Interest (expenses) income for the twelve months ended September 30, 2014, increased to expense of ($11,029) from income of $1,272 in the same period of 2013. The increase in interest (expense) income was due to the interest expense of $11,875 for the promissory notes entered into on September 11, 2014 as discussed in note E of the accompanying consolidated financial statements

Loss from Change in Fair Value of Warrant Liability

Loss from change in fair value of warrant liability during the twelve months ended September 30, 2014 and 2013 was $908,005 and $7,508,146, respectively. These losses relate to warrants containing certain reset provisions which required us to classify them as liabilities and mark the warrants to market and record the change in fair value at each reporting period, and upon exercise as a non cash adjustment to our current period operations.

Net Loss

Net loss for the twelve months ended September 30, 2014 was $13,066,661 compared to $17,686,472 in the same period of 2013, a decrease of $4,619,811 or 26% primarily a result of the decrease in our loss on change in fair value of warrant liability as well as the combination of factors described above.

Comparison of the Year Ended September 30, 2013 to the Year Ended September 30, 2012

Revenues

For the years ended September 30, 2013 and 2012, we generated $2,036,222 and $1,854,694 in revenues from operations, respectively. The increase in revenues of $181,528 or 9.8% for the twelve months ended September 30, 2013 was primarily caused by sales to suppliers of the DLA. In late January 2013, the DLA announced that it would subsidize marking costs for its trusted suppliers, and in March 2013, after this and other mechanisms were in place, we were able to begin shipments for this market. The sales to these third party suppliers during the year ended September 30, 2013 was offset by a decrease in sales due to the completion of our prior pilot contract with the Logistics Management Institute (“LMI”). Revenue during the twelve months ended September 30, 2013 included

$100,000 recognized from a development contract from the Missile Defense Agency.

Costs and Expenses

Selling, General and Administrative

Selling, general and administrative expenses for the twelve months ended September 30, 2013 increased by $3,582,771 or 47% to $11,198,505 from $7,615,734 in the same period in 2012. The increase is primarily attributable to higher professional fees, specifically for legal and consulting services, and additional salary expenses due to building an infrastructure for finance, production and information technology, to meet the anticipated future demand for sales. The increase is also attributable to increased rent expense due to the move into our new corporate headquarters. Bad debt expense increased to $77,415 for the year ended September 30, 2013 as compared to $0 for the year ended September 30, 2012.

Research and Development

Research and development expenses increased by $259,811 or 60.0% for the year ended September 30, 2013 compared to the same period in 2012 to $692,480 from $432,669. This increase is primarily due to the increased laboratory space with our new corporate headquarters as well as an increase in research and development to support expansion of our business and markets.

Depreciation and Amortization

In the twelve months ended September 30, 2013, depreciation and amortization increased by $7,134 or 2.3% compared to the same period in 2012 from $313,940 for the year ended September 30, 2012 to $321,074 for the year ended September 30, 2013. The increase in depreciation expense for the year ended September 30, 2013 was attributable to the impairment of certain intellectual property purchased as part of the purchase of certain assets of RedWeb Technologies of approximately $115,000. The increase is also due to depreciation and amortization expense for the leasehold improvements and lab equipment purchased during the year ended September 30, 2013 related to the relocation of our corporate offices. These increases were offset by the completion of the amortization of our intangible property, for which we incurred approximately $270,000 of amortization expense during the year ended September 30, 2012 as compared to $19,470 for the year ended September 30, 2013. The amortization during the year ended September 30, 2013 related to the intellectual property acquired from RedWeb Technologies.

Total Operating Expenses

Total operating expenses increased to $12,212,059 for the twelve months ended September 30, 2013 from $8,362,343 in the same period of 2012, or an increase of $3,849,716 or 46.0%, primarily attributable to an increase in professional fees, salaries and in R&D expenditures, as more fully described above.

Interest (Expenses) Income

Interest (expenses) income for the twelve months ended September 30, 2013, decreased to income of $1,272 from expense of ($643,063) in the same period of 2012. The decrease in interest (expense) income was due to no outstanding notes payable as of September 30, 2013.

Loss from Change in Fair Value of Warrant Liability

In November 2012 and July 2013, we issued warrants containing certain reset provisions which require us to classify them as a liability and mark the warrants to market and record the change in fair value each reporting period as a non-cash adjustment to our current period operations. This resulted in a $7,508,146 charge to operations during the twelve months ended September 30, 2013 as compared to $-0- for the same period in the prior year.

Net Loss

Net loss for the twelve months ended September 30, 2013 was $17,686,472 compared to $7,150,712 in the same period of 2012, a net change of $10,535,760 or 147.3% increase primarily a result of the loss on change in fair value of warrant liability as well as the combination of factors described above.

Comparison of the Year Ended September 30, 2012 to the Year Ended September 30, 2011

Revenues

For the years ended September 30, 2012 and 2011, we generated $1,854,694 and $968,848 in revenues from operations, respectively. The increase in revenues of 91% for the twelve months ended September 30, 2012 was substantially generated from sales of our SigNature DNA and BioMaterial GenoTyping as a result of an increase in our customer base.

Costs and Expenses

Selling, General and Administrative

Selling, general and administrative expenses for the twelve months ended September 30, 2012 decreased 9.2% to $7,615,734 from $8,388,873 in the same period in 2011. Included within the selling, general and administrative expenses for the year ended September 30, 2012 was a noncash charge to operations of $2,012,082 for the fair value of vested options issued to officers and employees and other stock based compensation compared to $3,668,460 in 2011.

Research and Development

Research and development expenses increased by $163,793 for the twelve months ended September 30, 2012 compared to the same period in 2011 from $268,876 to $432,669, primarily due to an increase in research and development activities to support our increased customer demand.

Depreciation and Amortization

In the twelve months ended September 30, 2012, depreciation and amortization decreased by $53,616 compared to the same period in 2011 from $367,556 to $313,940. The decrease is attributable to the expiring of the amortization of our intangible assets.

Total Operating Expenses

Total operating expenses decreased to $8,362,343 for the twelve months ended September 30, 2012 from $9,025,305 in the same period of 2011, or a decrease of $662,962, primarily due to decrease in stock based compensation expenses net with the increase in research and development compared to the same period last year.

Interest Expenses

Interest expenses for the twelve months ended September 30, 2012, decreased to $643,063 from $2,458,667 in the same period of 2011, a decrease of $1,815,604. The decrease in interest expense was due to reduction in the amortization of debt discounts attributable to our convertible notes of $541,120 as compared to $2,096,427 for the same period last year.

Net Loss

Net loss for the twelve months ended September 30, 2012 was $7,150,712 compared to $10,515,124 in the same period of 2011, a net change of $3,364,412 as a result of the combination of factors described above.

Liquidity and Capital Resources

Our liquidity needs consist of our working capital requirements and research and development expenditure funding. As of September 30, 2014, we had working capital deficit of $1,514,806. For the year ended September 30, 2014, we generated a net cash flow deficit from operating activities of $8,512,738 consisting primarily of our loss of $13,066,661, net with non-cash adjustments of $442,262 in depreciation and amortization charges, $2,033,341 for stock-based compensation, $908,005 change in fair value of warrant liability, $337,501 in common stock issued for consulting services and $19,755 of bad debt expense. Additionally, we had a net increase in operating assets of $149,583 and a net increase in operating liabilities of $962,642. Cash used in investing activities was $229,591 for the purchase of property, plant and equipment. Cash provided by financing activities was $3,775,160, which included $2,156,264 in proceeds from the sale of common stock related to a private placement and $1,800,000 in proceeds from promissory notes. These were offset by $181,104 in capitalized offering costs.

We have recurring net losses, which have resulted in an accumulated deficit of $199,760,272 as of September 30, 2014. At September 30, 2014 we had cash and cash equivalents of $1,393,132. Our current capital resources include cash and cash equivalents and other working capital resources. Historically, we have financed our operations principally from the sale of equity securities. We raised $2,156,264 in a private placement of common stock and warrants and $1,800,000 in promissory notes during the fiscal year ended September 30, 2014, including $1,000,000 from a related party. See Notes H and E, respectively, of the accompanying consolidated financial statements. Also, as discussed in Note M to the accompanying consolidated financial statements, on November 20, 2014 the Company closed its underwritten public offering of common stock and warrants for gross proceeds of $9.1 million. The Company utilized $4,091,000 of these gross proceeds to repurchase the remaining Series B warrants from an investor, as discussed in Note F of the accompanying consolidated financial statements.

We expect to finance operations primarily through cash flows provided by operating activities provided that we achieve a sufficient level of future revenues. We estimate that our cash and cash equivalents are sufficient to fund operations for the next twelve months.

We will require additional funds to complete the continued development of our products, product manufacturing, and to fund expected additional losses from operations, until revenues are sufficient to cover our operating expenses. If we are unsuccessful in obtaining the necessary additional financing, we will most likely be forced to reduce operations.

We expect capital expenditures to be less than $900,000 in fiscal 2015. Our primary investments will be in laboratory equipment to support prototyping, manufacturing, our authentication services, and outside services for our detector and reader development.

Substantially all of the real property used in our business is leased under operating lease agreements.

Commitments and Contingencies

Our principal contractual obligations and commercial commitments at September 30, 2014, are summarized in the following charts. We have no other off-balance sheet commitments.

	Payments Due By Period				
Contractual Obligations (in thousands)	Total	Less Than 1 Year	1 – 3 Years	3 – 5 Years	Over 5 Years
Lease commitments:					
Operating leases	$769,351	$468,548	$300,803	$—	$—
Fixed common area maintenance	—	—	—	—	—
Total	$769,351	$468,548	$300,803	$—	$—

Recent Debt and Equity Financing Transactions

Fiscal 2014

On September 11, 2014, we issued and sold promissory notes (the "Notes") in the aggregate principal amount of $1,800,000 and bearing interest at a rate of 12.5% per annum to Dr. James A. Hayward, our President, Chairman and Chief Executive Officer, in the amount of $1,000,000, and to another individual, in the amount of $800,000, both of whom are "accredited investors" as defined in regulations promulgated under the Securities Act.

The Notes had a ten month maturity. Interest was payable in cash or in shares of common stock at the option of the holders of the Notes. The Notes could have been prepaid in whole or in part, at any time, subject to certain prepayment penalties. Upon an event of default, the Notes and all accrued interest thereon would have automatically converted into common stock at the closing price of the common stock on the date of issuance of the Notes. In the event of a consolidation or merger with another corporation in which we did not survive, the Notes would have been paid in full. On November 11, 2014, Dr. Hayward and the other individual agreed to exchange for cancellation their respective notes (including principal and accrued interest thereon) for 315,171 shares of common stock and warrants to purchase 315,171 shares of common stock, in the case of Dr. Hayward, and 252,137 shares of common stock and warrants to purchase 252,137 shares of common stock, in the case of the other individual, at $3.25 per share, the aggregate public offering price per share and warrant of our underwritten public offering, which closed on November 20, 2014.

On June 3, 2014 we closed a private placement of our common stock and warrants to purchase common stock ("Warrants") with a group of investors (collectively the "Investors"), pursuant to subscription agreements for gross proceeds of $2,145,956. We issued and sold 312,257 shares of common stock at a purchase price of $6.87 per share ("Purchase Price") and Warrants to purchase 312,257 shares of common stock. The Purchase Price of the common stock represents a 5% discount to the volume weighted average closing price of the common stock from May 13, 2014 to May 16, 2014, which ranged from $6.93 to $7.47 per share during the period. The Warrants are exercisable at a price of $8.25 per share (representing a 20% premium to the Purchase Price) for a period of one year and do not have cashless exercise provisions. The common stock purchased as well as the common stock to be issued upon exercise of the Warrants will be subject to the six month holding period provisions of Rule 144.

On July 8, 2014, we closed on an additional subscription agreement under this private placement, with the same terms as disclosed above. We issued and sold 1,500 shares of our common stock and warrants to purchase 1,500 shares of our common stock for total proceeds of $10,308.

Fiscal 2013 — Securities Purchase Agreements

During the year ended September 30, 2013, we entered into two securities purchase agreements on November 28, 2012 (the "Initial Purchase Agreement") and July 19, 2013 (the "Second Purchase Agreement"), respectively, with an

institutional investor ("Investor") to sell an aggregate of $15.0 million ($7.5 million per agreement) of our securities (collectively, the "Purchase Agreements"). The total net proceeds received under these two transactions were $14.6 million ($15 million gross proceeds, less investment fees of $365,000). The table below summarizes the securities issued as part of the Purchase Agreements.

Securities Issued	Initial Purchase Agreement		Second Purchase Agreement	
	Shares issued	Price per share	Shares issued	Price per share
Common Stock	179,211	$ 11.16	178,253	$ 11.22
Series A Warrants	179,211	$ 13.39	178,253	$ 14.59
Series B Warrants	492,831	$ 13.39	490,196	$ 14.59
Series C Warrants	448,029	$ 13.39	445,633	$ 14.59
Series A Preferred Stock	5,500	$ 1,000	—	$ —
Series B Preferred Stock	—	$ —	5,500	$ 1,000

The Series A and Series B Preferred contained weighted average anti-dilution protection. The Series A and Series B Preferred did not accrue dividends. Our common stock was junior in rank to the Series A and Series B Preferred with respect to preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding up of the Company. The Series A and Series B Preferred generally had no voting rights except as required by law. The Series A and Series B Preferred were converted into common stock as set forth below.

Investor could have exercised Series A and Series B Warrants by paying in cash or on a cashless basis by exchanging such Warrants for common stock using the Black-Scholes value and the then market price of the common stock. In the event that the common stock traded at a price 25% or more above the exercise price of the Series A and Series B Warrants for a period of 20 consecutive days (with average daily dollar volume of common stock on the OTC Bulletin Board at least equal to $300,000), we could have obligated Investor to exercise such Warrants for cash.

Pursuant to the registration rights agreements with Investor, we filed registration statements within 30 days of the Initial Closing of the Purchase Agreements. The registration statements covered the resale of all shares of common stock issuable pursuant to the Purchase Agreements, including the shares of common stock underlying the Series A and Series B Preferred and Series A, B and C Warrants. We agreed to prepare and file amendments and supplements to the registration statements to the extent necessary to keep the registration statements effective for the period of time required under the Purchase Agreements. The registration rights agreements also contain provisions providing for monthly penalties of $75,000 plus interest in certain circumstances, including in the event the prospectus contained therein is not properly available for any reason. On April 11, 2014, we made a payment of $75,000 to Investor due to the suspension of use of the prospectus pending the filing of our Form 10-K/A containing the auditor attestation report on internal controls.

The Series A and Series B Preferred and the Series A, B and C Warrants each contained a 9.9% “blocker” so that in no event shall the Series A and Series B Preferred or any of the Series A, B and C Warrants be convertible or exercisable (including through the cashless exercise exchange provision) into or for common stock to the extent that such conversion or exercise would result in Investor having “beneficial ownership” (within the meaning of Section 13(d) of the Exchange Act) of more than 9.9% of the common stock. Investor, however, had the right from time to time to convert, exercise or exchange for shares of common stock, which over time would aggregate to greater than 9.9% beneficial ownership if all such shares of common stock so acquired had been held at one time by Investor.

On January 8, 2013, we exercised our option and converted the Series A Preferred into 424,383 shares of our common stock at a conversion price of $12.96 per share and on April 25, 2013, Investor effected the cashless exercise of the Series A and Series B Warrants related to the Initial Purchase Agreement. Also, on August 14, 2013, we exercised our option and converted the Series B Preferred into 705,128 shares of our common stock at a conversion price of $7.80 per share. On January 22, 2013, we exercised our option to repurchase the Series C Warrants related to the Initial Purchase Agreement and on August 14, 2013, we exercised our option to repurchase the Series C Warrants related to the Second Purchase Agreement for $50,000 and $10,000, respectively. See Subsequent Events below with respect to our repurchase of the unexercised portion of Investor’s Series B Warrant.

Fiscal 2012

On June 21, 2012, we closed a private placement of our common stock. We issued and sold 592,943 shares of common stock at a purchase price of $2.60 per share (which is equal to a 20% discount to the average volume, weighted average price of the common stock for the ten trading days prior to the closing) to an “accredited investor,” as defined in regulations promulgated under the Securities Act, for gross proceeds of $1,542,600.

On August 10, 2012, we closed a private placement of our common stock. We issued and sold 137,761 shares of our common stock at a purchase price of $2.60 per share to “accredited investors,” as defined in regulations promulgated under the Securities Act, for gross proceeds of $358,400.

On September 27, 2012, we closed a private placement of our common stock. We issued and sold 18,688 shares of our common stock at a purchase price of $10.70 per share to “accredited investors,” as defined in regulations promulgated

under the Securities Act, for gross proceeds of $200,000.

Subsequent Events

On October 24, 2014, the Company filed a Third Certificate of Amendment of its Certificate of Incorporation with the Secretary of State of the State of Delaware that effected a one-for-60 (1:60) reverse stock split and a decrease in our authorized common stock, par value $0.001 per share, from 1,350,000,000 to 500,000,000 shares, effective October 29, 2014.

On October 28, 2014, we entered into a warrant repurchase option agreement with Investor, pursuant to which we had the option to purchase between 50% and 100% of the unexercised portion of Investor's Series B Warrant (exercisable for 387,621 shares of common stock) at a purchase price of $10.55 per share underlying such Series B Warrant (up to an aggregate purchase price of $4,091,000 for all of the Series B Warrant). On November 21, 2014, following the closing of our underwritten public offering with gross proceeds of $9.1 million, we exercised our option and repurchased 100% of Investor's Series B Warrant for an aggregate purchase price of $4,091,000.

On November 11, 2014, Dr. James A. Hayward, our President, Chairman and Chief Executive Officer, and another individual agreed to exchange for cancellation their promissory notes in the amounts of $1,000,000 and $800,000, respectively, and accrued interest thereon for 315,171 shares of common stock and warrants to purchase 315,171 shares of common stock, in the case of Dr. Hayward, and 252,137 shares of common stock and warrants to purchase 252,137 shares of common stock, in the case of the other individual, at $3.25 per share, the aggregate public offering price per share and warrant of our underwritten public offering described below.

On November 20, 2014, we closed an underwritten public offering in which 2,800,000 shares of common stock and warrants to purchase up to an aggregate of 2,800,000 shares of common stock were sold to the public for gross proceeds to us of $9.1 million before deducting underwriting discounts and offering expenses payable by us. The Company utilized $4,091,000 of the gross proceeds to repurchase the remaining Series B Warrants from Investor, as discussed in Note F of the accompanying consolidated financial statements. The public offering price for each share of common stock and each warrant was $3.25. The warrants may be exercised for a period of five years and have a per share exercise price of $3.50 per share of Common Stock. In connection with the offering, we granted to the underwriters a 45-day option to purchase up to 420,000 additional shares of common stock and/or up to 420,000 additional warrants to cover over-allotments, if any. Our common stock and warrants are listed on the Nasdaq Capital Market under the symbols “APDN” and “APDNW”, respectively. In addition, we agreed to issue to the underwriters warrants to purchase 128,800 shares of common stock at an exercise price equal to $3.73 per share. The Company had approximately $1,212,000 of deferred offering costs as of December 15, 2014.

In connection with the closing of the offering, we entered into a Warrant Agreement with American Stock Transfer & Trust Company, LLC, as warrant agent (“Warrant Agreement”), pursuant to which American Stock Transfer & Trust Company, LLC has agreed to act as transfer agent with respect to the warrants for the Company. A copy of the Warrant Agreement is filed as Exhibit 4.1 and is incorporated herein by reference.

On November 20, 2014 we granted 83,334 options to purchase our Common Stock at an exercise price of $2.69 per share for five years to a consultant, which vest immediately.

On December 3, 2014 Joseph D. Ceccoli was appointed to our Board of Directors.

Product Research and Development

We anticipate spending approximately $1,250,000 for product research and development activities during the next twelve months. As disclosed elsewhere in this Form 10-K, on July 14, 2014 we were awarded a two-year Phase II SBIR contract by the U.S. Missile Defense Agency for $975,000, and on August 28, 2014 we were awarded a two-year development contract for $2.97 million by the Office of the Secretary of Defense on behalf of the Defense Logistics Agency. We also have pilot studies underway for industrial materials and textile companies.

Acquisition of Plant and Equipment and Other Assets

We do not anticipate the sale of any material property, plant or equipment during the next 12 months.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements.

Inflation

The effect of inflation on our revenue and operating results was not significant.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Interest Rate Risk

We do not believe we are exposed to material direct risks associated with changes in interest rates other that with our cash and cash equivalents. At September 30, 2014 we had $1,393,132 in cash and cash equivalents, the interest income from which is affected by changes in interest rates for the year ended September 30, 2014 was $846.

Equity Risk

We are exposed to market risk with respect to the valuation of our warrant liability with a fair value of $1,096,412 at September 30, 2014. The fair value calculation, as discussed in footnote F of the September 30, 2014 consolidated financial statements, is exposed to market volatilities, changes in the price of our common stock and interest rates. Our loss on the change in fair value of the warrant liability for the year ended September 30, 2014 was $908,005.

Foreign Exchange Risk

The majority of our revenues and expenses are transacted in U.S. dollars. As a portion of our sales activities is outside of the United States, we have foreign exchange exposure to non-U.S. dollar revenues. However, we do not believe that foreign currency fluctuations materially affect our results of operations but may in the future if we expand our international sales. For the year ended September 30, 2014 our foreign currency transaction gain/loss was deminimis.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

See pages F-1 through F-27 following the Exhibits List.

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

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES.

Management Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Our internal control over financial reporting was designed to provide reasonable assurance to the Company's management and board of directors regarding the preparation and fair presentation of published consolidated financial statements. Internal control over financial reporting is promulgated under the Exchange Act as a process designed by, or under the supervision of, the Company's principal executive and principal financial officers and effected by the Company's board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Internal control over financial reporting, no matter how well designed, has inherent limitations and may not prevent or detect misstatements. Therefore, even effective internal control over financial reporting can only provide reasonable assurance with respect to the financial statement preparation and presentation.

Our management has conducted, with the participation of our CEO and CFO, an assessment, including testing of the effectiveness, of our internal control over financial reporting as of September 30, 2014. Management's assessment of internal control over financial reporting was based on assessment criteria established in the 1992 Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on such evaluation, management concluded that our internal control over financial reporting was effective as of September 30, 2014.

Remediation of Previously Reported Material Weakness

Our management developed and implemented a remediation action plan that fully remediated our previously reported material weakness. The principal elements of our remediation plan included the following:

a. Our CEO appointed a Sarbanes-Oxley project leadership team, consisting of our CFO and our Controller, that oversaw the project,
b. Together with a consultant that we have engaged, we have enhanced our review procedures and the documentation thereof, and,
c. We implemented these enhanced procedures during our fiscal year ended September 30, 2014.

Further, we have amended our Form 10-K for the year ended September 30, 2013 to include a 404(b) attestation opinion from our auditors.

Attestation Report of the Independent Registered Public Accounting Firm

The effectiveness of our internal control over financial reporting as of September 30, 2014 has been audited by Marcum LLP, our independent registered public accounting firm, who also audited our consolidated financial statements as of and for the year end September 30, 2014 included in this Annual Report on Form 10-K.

Changes in Internal Control over Financial Reporting

There were no additional changes, other than those detailed above under Remediation of Material Weakness in our internal control over financial reporting during the most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM ON INTERNAL CONTROL OVER FINANCIAL REPORTING

To the Audit Committee of the
Board of Directors and Shareholders of
Applied DNA Sciences, Inc.

We have audited Applied DNA Sciences, Inc.'s (the "Company") internal control over financial reporting as of September 30, 2014, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in 1992. The Company's management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Management Annual Report on Internal Control over Financial Reporting". Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that degree of compliance with the policies or procedures may deteriorate.

In our opinion, Applied DNA Sciences, Inc. maintained, in all material aspects, effective internal control over financial reporting as of September 30, 2014, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 1992.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets as of September 30, 2014 and the related consolidated statements of operations, stockholders' equity, and cash flows for the year then ended of the Company and our report dated December 15, 2014 expressed an unqualified opinion on those financial statements.

/s/ Marcum llp

Marcum llp
Melville, NY
December 15, 2014

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ITEM 9B. OTHER INFORMATION.

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.

The following is a list of our directors, executive officers and significant employees.

Name	Age	Title	Board of Directors
James A. Hayward	61	Chief Executive Officer, President, and Chairman of the Board	Director
John Bitzer, III	53		Director
Charles S. Ryan	50		Director
Yacov A. Shamash	65		Director
Sanford R. Simon	72		Director
Joseph D. Ceccoli	51		Director
Karol K. Gray	61	Chief Financial Officer	
Judith Murrah	56	Chief Information Officer	
Ming-Hwa Benjamin Liang	51	Secretary and Strategic Technology Development Officer	

Directors are elected to serve until the next annual meeting of stockholders and until their successors are elected and qualified. There are no family relationships between any director, executive officer, or person nominated or chosen by the registrant to become a director or executive officer.

Chief Executive Officer, President, and Chairman of the Board — James A. Hayward

Dr. James A. Hayward has been our Chief Executive Officer since March 17, 2006 and our President and the Chairman of the Board of Directors since June 12, 2007. He was previously our acting Chief Executive Officer since October 5, 2005. He also served as Acting Chief Financial Officer from August 20, 2013 through October 13, 2013. Dr. Hayward received his Ph.D. in Molecular Biology from the State University of New York at Stony Brook in 1983 and an honorary Doctor of Science from the same institution in 2000. His experience with public companies began with the co-founding of one of England's first biotechnology companies — Biocompatibles. Following this, Dr. Hayward was Head of Product Development for the Estee Lauder companies for five years. In 1990 he founded The Collaborative Group, a provider of products and services to the biotechnology, pharmaceutical and consumer-product industries based in Stony Brook, where he served as Chairman, President and Chief Executive Officer for 14 years. During this period, The Collaborative Group created several businesses, including The Collaborative BioAlliance, a contract developer and manufacturer of human gene products, that was sold to Dow Chemical in 2002, and Collaborative Labs, a service provider and manufacturer of ingredients for skincare and dermatology that was sold to Engelhard (now BASF) in 2004.

Our Board believes that Dr. Hayward's current role as our Chief Executive Officer, the capital investments he has made to the Company throughout his tenure with us and his former senior executive positions in our industry make him an important contributor to our Board. Dr. Hayward also serves on the Board of Directors for the LI Angel Network, Regents Council, Softheon Corporation and Ward Melville Heritage Organization.

Director — John Bitzer, III

John Bitzer, III, joined the Board of Directors on August 10, 2011. Mr. Bitzer is President and Chief Executive Officer of ABARTA, Inc., a private, third-generation family holding-company with operations in the soft drink beverages, newspaper publishing, oil and gas exploration and development, and ethnic and frozen food industries ("ABARTA"). In 1985, Mr. Bitzer began his career in sales for the Cleveland Coca-Cola Bottling Company. He has been Publisher of Atlantic City Magazine in Atlantic City, N.J. In 1994 he founded the ABARTA Media Group and held the position of Group Publisher. In 1997 he was named President and Chief Operating Officer of ABARTA and has been President and Chief Executive Officer since 1999. Mr. Bitzer has a degree from the University of Southern California and an MBA from the University of Michigan.

Our Board believes that Mr. Bitzer's professional and management experience in investing in and building growing enterprises make him an important contributor to the Board.

Director — Charles S. Ryan

Dr. Charles S. Ryan joined the Board of Directors on August 2011. Dr. Ryan is the Sr. Vice President, and Chief Intellectual Property Counsel at Forest Laboratories ("Forest"), where he has been employed since 2003. Forest, a wholly-owned subsidiary of Actavis, with a market capitalization of nearly $60 billion, develops and markets pharmaceutical products in a variety of therapeutic categories including central nervous system, cardiovascular, anti-infective, respiratory, gastrointestinal, and pain management medicine. Dr. Ryan has over 20 years experience in managing all aspects of intellectual property litigation, conducting due diligence investigations and prosecuting patent and trademark applications in the pharmaceutical and biotechnology industries. Dr. Ryan earned a doctorate in oral biology and pathology from Stony Brook University and a law degree from Western New England University.

Our Board believes that Mr. Ryan's expertise as chief intellectual property counsel at a global company make him an important contributor to the Board

Director — Yacov A. Shamash

Dr. Yacov A. Shamash has been a member of the Board of Directors since March 17, 2006. Dr. Shamash is Vice President of Economic Development at the State University of New York at Stony Brook. Since 1992, he has been the Dean of Engineering and Applied Sciences and the Harriman School for Management and Policy at the University, and Founder of the New York State Center for Excellence in Wireless Technologies at the University. Dr. Shamash developed and directed the NSF Industry/University Cooperative Research Center for the Design of Analog/Digital Integrated Circuits from 1989 to 1992 and also served as Chairman of the Electrical and Computer Engineering Department at Washington State University from 1985 until 1992. Dr. Shamash also serves on the Board of Directors of Keytronic Corp.

As Vice President of Economic Development at the State University of New York at Stony Brook, Dr. Shamash daily encounters leaders of businesses large and small, regional and global in their reach and, as a member of our Board, has played an integral role in our business development by providing the highest-level introductions to customers, channels to market and to the media. Dr. Shamash also brings to our Board his valuable experience gained from serving as a director at other private and public companies.

Our Board believes that Dr. Shamash's professional and management experience, service on other companies' boards and education make him an important contributor to our Board.

Director — Sanford R. Simon

Dr. Sanford R. Simon has been a member of the Board of Directors since March 17, 2006. Dr. Simon has been a Professor of Biochemistry, Cell Biology and Pathology at Stony Brook since 1997. He joined the faculty at Stony Brook as an Assistant Professor in 1969 and was promoted to Associate Professor with tenure in 1975. Dr. Simon was a member of the Board of Directors of The Collaborative Group from 1995 to 2004. From 1967 to 1969 Dr. Simon was a Guest Investigator at Rockefeller University. Dr. Simon received a B.A. in Zoology and Chemistry from Columbia University in 1963, a Ph.D. in Biochemistry from Rockefeller University in 1967, and studied as a postdoctoral fellow with Nobel Prize winner Max Perutz in Cambridge, England. He maintains an active research laboratory studying aspects of cell invasion in cancer and inflammation and novel strategies of drug delivery; he also teaches undergraduate, graduate, medical, and dental students.

Dr. Simon is an expert at the use of large biomolecules in commercial media, and we have made use of his expertise in formulating DNA into commercial carriers for specific customers. As a member of our Board, Dr. Simon has advised us on patents, provided technical advice, and introduced us to corporate partners and customers.

Our Board believes that Dr. Simon's professional experience, expertise, and education make him an important contributor to our Board.

Director – Joseph D. Ceccoli

Joseph D. Ceccoli was appointed to the board of directors on December 3, 2014. Since 2010, Mr. Ceccoli has been the Founder, President and CEO of Biocogent, LLC, a bioscience company located at the Stony Brook Long Island High Technology Incubator. Biocogent is focused on the invention, development and commercialization of skin-active

molecules and treatment products used in regulated (OTC / Med-care), personal care and consumer products. Prior to starting Biocogent, Mr. Ceccoli was Global Director of Operations for BASF Corporation, a global Fortune 100 company and the world's largest global chemical company, where he was responsible for the integration, operations and growth of domestic and overseas business units from 2007 to 2008. Prior to BASF, Mr. Ceccoli was a General Manager for Engelhard Corporation, a US based fortune 500 company and chief operating officer of the Long Island based Collaborative Group from 2004 to 2007.

Mr. Ceccoli holds a Bachelor of Science Degree in Biotechnology from Rochester Institute of Technology and advanced professional training in various pharmaceutical sciences, emulsion chemistry, engineering and management disciplines. He is a member of numerous professional organizations such as the American Chemical Society and the Society of Cosmetic Chemists.

Our Board believes that Mr. Ceccoli's professional, operational and management experience make him an important contributor to our Board.

Chief Financial Officer — Karol K. Gray

Karol K. Gray has been our Chief Financial Officer since October 14, 2013. Previously she served on our Board of Directors from August 10, 2011 through August 20, 2013, and was chair of the Audit Committee and a member of the Compensation Committee.

During 2011 through 2013, she held the position of Vice Chancellor of Finance and Administration at UNC Chapel Hill. In addition she was the Executive Vice President/Treasurer of the Chapel Hill Foundation Real Estate Holdings, Inc., Treasurer of The University of North Carolina at Chapel Hill Investment Fund, Inc. (CHIF), Treasurer of The University of North Carolina at Chapel Hill Foundation, Inc., and Secretary/Treasurer of UNC Management Company, and a board member of the UNC Health Care System.

Prior to her position at UNC Chapel Hill, Ms. Gray was Vice President for Finance & Administration and the Chief Financial Officer at Stony Brook University. She was active on several committees, including the Brookhaven National Laboratory Audit Committee, the Presidential Budget Working Group, and the Investment Subcommittee of the Research Foundation of the State University of New York, and a member of the Executive Committee of the State University of New York Business and Officers Association.

Ms. Gray is a graduate of Hofstra University. Ms. Gray has 35 years of financial, organizational and management experience.

Chief Information Officer — Judith Murrah

Judith Murrah has been our Chief Information Officer since June 1, 2013. Ms. Murrah is responsible for information technology strategy and implementation. Ms. Murrah joined us from Motorola Solutions, which had acquired her former firm, Symbol Technologies. She was Senior Director of Information Technology, overseeing global IT program management office, financial and supplier operations and quality assurance. At Symbol, Ms. Murrah held leadership positions in product line management, global account sales, corporate and marketing communications and IT. Ms. Murrah holds a Master of Business Administration (MBA) from Harvard Business School, and a Bachelor of Science (BS) in Industrial Engineering from the University of Rhode Island. She is an author on eleven U.S. patents and one additional pending. Ms. Murrah is co-founder and President of non-profit ConnectToTech, a recognized leader in engaging students in science, technology, engineering and math disciplines. Ms. Murrah was named to 2005 and 2006 Top 50 Women of Long Island and received the inaugural 2001 Diamond Award for Long Island Women Leaders in Technology.

Secretary and Strategic Technology Development Officer — Ming-Hwa Benjamin Liang

Ming-Hwa Benjamin Liang has been our Secretary and Strategic Technology Development Officer since October 2005. Between May 1999 and September 2005, Mr. Liang had been the director of research and development at Biowell Technology Inc. Mr. Liang received a B.S. in Bio-Agriculture from Colorado State University in 1989, a M.S. in Horticulture from the University of Missouri at Columbia in 1991, his Ph.D. in Plant Science from the University of Missouri at Columbia in 1997 and his LL.M. in Intellectual Property Law from Shih Hsin University, Taiwan in 2004.

Board Leadership Structure

Our Board of Directors does not have a policy on whether the same person should serve as both the Chief Executive Officer and Chairman of the Board or, if the roles are separate, whether the Chairman should be selected from the non-employee directors or should be an employee. The Board of Directors believes that Dr. Hayward's dual role as both Chairman of the Board and Chief Executive Officer serves the best interests of both the company and its stockholders. His combined role enables decisive leadership, ensures clear accountability, and enhances the Company's ability to communicate its message and strategy clearly and consistently to the company's stockholders, employees, customers and suppliers. Dr. Hayward possesses detailed and in-depth knowledge of the issues, opportunities and challenges facing us and our businesses and is thus best positioned to develop agendas that ensure that the time and attention of the Board of Directors are focused on the most critical matters. This structure also enables our Chief Executive Officer to act as a bridge between management and the Board of Directors, helping both to act with a common purpose.

The Board of Directors appreciates that the advantages gained by having a single Chairman and Chief Executive Officer must be viewed in light of potential independence concerns. The Board considers, however, that we have adequate safeguards in place to address those concerns, including, for example, our Board of Directors consisting of a supermajority of independent directors. In addition, our audit, compensation and nominating committees, which oversee critical matters such as the integrity of our financial statements, the compensation of executive management, the selection and evaluation of directors, and the development and implementation of corporate governance policies, each consist entirely of independent directors.

Our risk management program is overseen by our Chief Executive Officer. Material risks are identified and prioritized by management, and each prioritized risk is referred to a Board Committee or the full Board of Directors for oversight. For example, strategic risks are referred to the full Board while financial risks are referred to the Audit Committee. The Board of Directors regularly reviews information regarding our liquidity and operations, as well as the risks associated with each. Also, the Compensation Committee periodically reviews the most important risks to our business to ensure that compensation programs do not encourage excessive risk-taking and promote our goals and objectives.

Board of Directors Structure and Committee Composition

In June 2008, our Board of Directors established a standing compensation committee and in September 2011, our Board of Directors established an audit committee and a nominating committee. Each of the committees operates under a written charter adopted by the Board of Directors. All of the committee charters are available on our web site at http://www.adnas.com/investors or by writing to Applied DNA Sciences, Inc., 50 Health Sciences Drive, Stony Brook, New York 11790, c/o Investor Relations.

The membership of each of the audit committee, the compensation committee, and the nominating committee is composed entirely of independent directors. In addition, the members of the audit committee meet the heightened standards of independence for audit committee members required by SEC rules and NASDAQ rules. The committee membership and the responsibilities of each of the committees are described below.

Name	Audit	Compensation	Nominating
James A. Hayward	—	—	—
John Bitzer, III(I)			
Joseph D. Ceccoli(I)	—	—	—
Charles S. Ryan(I)			—
Sanford R. Simon(I)	—	—	
Yacov A. Shamash(I)			

Chairperson
Member
(I) Independent director

Audit Committee

Messrs. Bitzer (Chairperson), Ryan and Shamash currently serve on the audit committee. On August 20, 2013 in connection with her appointment as Chief Financial Officer, effective October 14, 2013 Karol Gray resigned from the audit committee, of which she was the chair and John Bitzer assumed the chair position. The Board of Directors has determined that each member of the audit committee is independent within the meaning of the director independence standards of the company and NASDAQ as well as the heightened director independence standards of the SEC for audit committee members, including Rule 10A-3(b)(1) under the Exchange Act. The Board of Directors has also determined that each of the members of the audit committee is financially sophisticated and is able to read and understand consolidated financial statements and that Mr. Bitzer is an “audit committee financial expert” as defined in the Exchange Act.

The composition and responsibilities of the audit committee and the attributes of its members, as reflected in the charter, are intended to be in accordance with applicable requirements for corporate audit committees. The audit committee charter will be reviewed, and amended if necessary, on an annual basis.

The audit committee assists the Board of Directors in fulfilling its oversight responsibility relating to our financial statements and the disclosure and financial reporting process, our system of internal controls, our internal audit function, the qualifications, independence and performance of our independent registered public accounting firm, compliance with our code of ethics and legal and regulatory requirements. The audit committee has the sole authority to appoint, retain, terminate, compensate and oversee the work of the independent registered public accounting firm, as well as to pre-approve all audit and non-audit services to be provided by the independent registered public accounting firm.

Compensation Committee

Our compensation committee is composed of John Bitzer, III, Yacov A. Shamash (Chairperson) and Charles S. Ryan. Ms. Gray resigned as a member of the Compensation Committee on August 20, 2013 in connection with her appointment as Chief Financial Officer effective October 14, 2013. The compensation committee reviews and approves salaries and bonuses for all officers, administers options outstanding under our stock incentive plan, provides advice and recommendations to the Board regarding directors' compensation and carries out the responsibilities required by SEC rules. The compensation committee believes that its processes and oversight should be directed toward attracting, retaining and motivating employees and non-employee directors to promote and advance our interests and strategic goals. As requested by the compensation committee, the Chief Executive Officer will provide information and may participate in discussion regarding compensation for other executive officers. The compensation committee does not utilize outside compensation consultants but considers other general industry information and trends if available.

Nominating Committee

Messrs. Shamash (Chairperson), Bitzer and Simon currently serve on the nominating committee. The Board of Directors has determined that each member of the nominating committee is independent within the meaning of the director independence standards of the company, NASDAQ and the SEC.

The nominating committee is responsible for, among other things: reviewing Board composition, procedures and committees, and making recommendations on these matters to the Board of Directors; and reviewing, soliciting and making recommendations to the Board of Directors and stockholders with respect to candidates for election to the Board.

Compensation Committee Interlocks and Insider Participation

None of the prospective members of our compensation committee is or has been an officer or employee of our company. None of our executive officers currently serves, or in the past year has served, as a member of the compensation committee or director (or other board committee performing equivalent functions or, in the absence of any such committee, the entire Board of Directors) of any entity that has one or more executive officers who will serve on our compensation committee or our Board of Directors.

Process for Identifying and Evaluating Nominees for the Board of Directors

Director Qualifications. The nominating committee has not formally established any specific, minimum qualifications that must be met by each candidate for the Board of Directors or specific qualities or skills that are necessary for one or more of the members of the Board of Directors to possess.

Identifying Nominees. The nominating committee has two primary methods for identifying director candidates (other than those proposed by our stockholders, as discussed below). First, on a periodic basis, the nominating committee will solicit ideas for possible candidates from a number of sources, including members of the Board of Directors, our executive officers and individuals personally known to the members of the Board of Directors. Second, the nominating committee is authorized to use its authority under its charter to retain at the company's expense one or more search firms to identify candidates (and to approve such firms' fees and other retention terms).

Stockholder Candidates. The nominating committee will consider candidates for nomination as a director submitted by stockholders. Although the nominating committee does not have a separate policy that addresses the consideration of director candidates recommended by stockholders, the Board of Directors does not believe that such a separate policy is necessary because our bylaws permit stockholders to nominate candidates and one of the duties set forth in the nominating committee charter is to consider director candidates submitted by stockholders in accordance with our bylaws. The nominating committee will evaluate individuals recommended by stockholders for nomination as directors according to the criteria discussed above and in accordance with our bylaws and the procedures described under "Stockholder Proposals and Nominations" below.

Review of Director Nominees. The nominating committee will evaluate any candidates recommended by stockholders against the same criteria and pursuant to the same policies and procedures applicable to the evaluation of candidates proposed by our directors, executive officers, third-party search firms or other sources. In evaluating proposed director candidates, the nominating committee may consider, in addition to any minimum qualifications and other criteria for Board of Directors membership approved by the Board of Directors from time to time, all facts and circumstances that it deems appropriate or advisable, including, among other things, the proposed director candidate's understanding of

the company's business and industry on a technical level, his or her judgment and skills, his or her depth and breadth of professional experience or other background characteristics, his or her independence, his or her willingness to devote the time and effort necessary to be an effective board member, and the needs of the Board of Directors. We do not have a formal policy with regard to the consideration of diversity in identifying director nominees. However, the Board of Directors believes that it is essential that its members represent diverse viewpoints, with a broad array of experiences, professions, skills, geographic representation and backgrounds that, when considered as a group, provide a sufficient mix of perspectives to allow the Board of Directors to best fulfill its responsibilities to the long-term interests of our stockholders. The nominating committee considers at least annually, and recommends to the Board of Directors suggested changes to, if any, the size, composition, organization and governance of the Board of Directors and its committees.

Stockholder Proposals and Nominations. In order for a stockholder to nominate a person for election as a director at the 2015 annual meeting of stockholders, you must provide written notice to Applied DNA Sciences, Inc., 50 Health Sciences Drive, Stony Brook, New York 11790, c/o Corporate Secretary. The Corporate Secretary must receive this notice within the time period specified in the proxy statement for the 2014 annual meeting of stockholders. The notice of a proposed director nomination must provide information and documentation as required in our bylaws which, in general, require that the notice of a director nomination include the information about the nominee that would be required to be disclosed in the solicitation of proxies for the election of a director under federal securities laws; the nominee's written consent to be named in the proxy statement as a nominee and to serve as a director if elected; a description of any transaction or arrangement during the last three years between the stockholder making the nomination and the nominee in which the nominee had a direct or indirect material interest; and a completed and signed questionnaire, representation and agreement. A copy of the bylaw requirements will be provided upon request to the Corporate Secretary at the address above.

Stockholder Communications with the Board

Stockholders and other interested parties may make their concerns known confidentially to the Board of Directors or the independent directors by submitting a communication in an envelope addressed to the "Board of Directors," a specifically named independent director or the "Independent Directors" as a group, in care of the Secretary. All such communications will be conveyed, as applicable, to the full Board of Directors, the specified independent director or the independent directors as a group.

Code of Ethics

Our Board of Directors adopted a "code of ethics" as defined by regulations promulgated under the Securities Act and the Exchange Act that applies to all of our employees, officers and directors, including those officers responsible for financial reporting. The code of ethics is designed to codify the ethical standards that we believe are reasonably designed to deter wrong-doing.

We have established procedures to ensure that suspected violations of the code may be reported anonymously. A current copy of our code of ethics is available on our website at http://www.adnas.com/investors. A copy may also be obtained, free of charge, from us upon a request directed to Applied DNA Sciences, Inc., 50 Health Sciences Drive, Stony Brook, New York 11790, c/o Investor Relations. We intend to disclose any amendments to or waivers of a provision of the code of ethics granted to directors and officers by posting such information on our website available at www.adnas.com and/or in our public filings with the SEC.

Section 16(a) Beneficial Ownership Reporting Compliance

Since we did not register our common stock under Section 12 of the Exchange Act until November 13, 2014 in connection with the listing of our common stock and warrants on The NASDAQ Stock Market LLC, we were not required to file reports of executive officers and directors and persons who own more than 10% of a registered class of the Company's equity securities pursuant to Section 16(a) of the Exchange Act during our fiscal year ending September 30, 2014.

ITEM 11. EXECUTIVE COMPENSATION.

Compensation Discussion & Analysis

Our compensation approach is necessarily tied to our stage of development as a company. We are principally devoted to developing DNA embedded biotechnology security solutions and to date, have had a limited operating history. As a company with a limited operating history, we have necessarily limited the establishment of extensive administrative and operating infrastructure, and a formal executive compensation policy has not been established. We have a compensation committee of the Board of Directors that is responsible for all compensation matters of our Chief Executive Officer. Historically, the compensation of all our other named executive officers was approved by our Board of Directors upon the recommendation of our compensation committee, which in turn relied upon the recommendation of our Chief Executive Officer. As discussed below, the recommendation of our Chief Executive Officer was largely discretionary, based on his subjective assessment of the particular executive. As we continue to grow, we expect that the specific direction, emphasis and components of our executive compensation program will continue to evolve. The compensation committee has overall responsibility for approving and evaluating our executive officers' compensation plans, policies and programs. Our compensation program is designed to employ best practices in executive compensation and consider all relevant regulatory guidance regarding sound incentive compensation

policies. The remainder of this section provides a general summary of our compensation policies and procedures.

Our Executive Compensation Philosophy and Objectives

General

The fundamental purpose of our executive compensation program is to assist us in achieving our financial and operating performance objectives. Specifically, we attempt to tailor an executive's compensation to (1) retain and motivate the executive, (2) reward him or her upon the achievement of company-wide, and individual performance, and (3) align the executive's interest with the creation of long-term stockholder value, without encouraging excessive risk taking. To that end, and within the context of the stage of our company, we have compensated our named executive officers through a mix of base salary, equity-based incentives, and cash bonuses.

Our business model is based on our ability to establish long-term relationships with clients and to maintain our strong mission, client focus, entrepreneurial spirit and team orientation. We have sought to create an executive compensation package that balances short-term versus long-term components when considering cash bonuses and employee options, in ways we believe are most appropriate to motivate senior management and reward them for achieving the following goals:

Develop a culture that embodies a commitment for our business, creative contribution and a drive to achieve established goals and performance objectives;

Provide leadership to the organization in such a way as to maximize the results of our business operations;

Lead us by demonstrating forward thinking in the operation, development and expansion of our business;

Effectively manage organizational resources to derive the greatest value possible from each dollar invested; and

Take strategic advantage of the market opportunity to expand and grow our business and revenues.

We believe that having a compensation program designed to align executive officers to meet our business objectives and to reinforce excellent performance and accountability is the cornerstone to successfully implement and achieve our strategic plan. In determining the compensation of our executive officers, we are guided by the following key principles:

Competition. Compensation should reflect the competitive marketplace, so we can retain, attract and motivate talented executives.

Accountability for Business Performance. Compensation should be tied to financial performance, so that executives are held accountable through their compensation for contributions to the performance of our company as a whole as well as their performance of the business unit for which they are responsible.

Accountability for Individual Performance. Compensation should be tied to the individual's performance to encourage and reflect individual contributions to our company's performance. We consider individual performance as well as performance of the businesses and responsibility areas that an individual oversees, and weigh these factors as appropriate in assessing a particular individual's performance.

Alignment with Stockholder Interests. Compensation should be tied to our financial performance through equity awards to align executives' interests with those of our stockholders.

Our executive compensation structure not only aims to be competitive in our industry, but also to be fair relative to compensation paid to other professionals within our organization, relative to our short-term and long-term performance and relative to the value we deliver to our stockholders. We seek to maintain a performance-oriented culture and a compensation approach that rewards our executive officers when we achieve our goals and objectives, while putting at risk an appropriate portion of their compensation against the possibility that our goals and objectives may not be achieved.

The Chief Executive Officer is the only named executive officer with an employment agreement. In addition, there is no change in control, severance or noncompetition agreements with any named executive officer, nor are we otherwise obligated to pay any named executive officers any amounts if there is a change in control of the Company or if such executive's employment with us terminates, except for the Chief Executive Officer.

Determination of Executive Compensation Awards

The compensation committee establishes and monitors the basic philosophy governing the compensation of the Chief Executive Officer. On an annual basis, the compensation committee reviews and makes recommendations to the Board with respect to the compensation of the Chief Executive Officer including incentive compensation plans and equity-based plans. Historically, compensation decisions for all other of our executive officers were approved by our Board of Directors upon the recommendation of our compensation committee, which in turn relied upon the recommendation of our Chief Executive Officer. We have traditionally placed significant emphasis on the recommendation of our Chief Executive Officer with respect to the determination of executive compensation (other than his own), in particular with respect to the determination of base salary, cash incentive and equity incentive awards, and typically followed such recommendations as presented by our Chief Executive Officer. As we continue to

grow, we will make the transition to have our compensation committee be solely responsible for administering our executive compensation program, although we expect to continue to rely, in part, upon the advice and recommendations of our Chief Executive Officer, particularly with respect to those executive officers that report directly to him. The compensation committee's composition and oversight of our executive compensation program is described in more detail below in the section entitled "Compensation Committee."

For purposes of determining our executive officer compensation in fiscal 2014 and in prior fiscal years, we considered the following factors: our understanding of the amount of compensation generally paid by similarly situated companies to their executives with similar roles and responsibilities; the roles and responsibilities of our executives; the individual experience and skills of, and expected contributions from, our executives; the amounts of compensation being paid to our other executives; our executives' historical compensation at our company; an assessment of the professional effectiveness and capabilities of the executive officer; and the performance of the executive officer against the corporate and other scorecards used to determine incentive compensation. While we have not used any formula to determine compensation based on these factors, we have placed the most emphasis in determining compensation on our understanding of the amount of compensation generally paid by similarly situated companies to their executives with similar roles and responsibilities and the subjective assessment of the professional effectiveness and capabilities of the executive officer. Our understanding of the amount of compensation generally paid by similarly situated companies was based on our compensation committee's and our Chief Executive Officer's own business judgment and collective experience in such matters.

Base Salary

Our Board of Directors sets the Chief Executive Officer's base salary annually, based on the recommendation of the compensation committee. The base salary for each of the other named executive officers is reviewed annually by the Chief Executive Officer and any adjustments are communicated and approved by the Compensation Committee. Adjustments to base salary are based upon a review of a variety of factors, including the following:

- individual and Company performance, measured against quantitative and qualitative goals, such as our growth, revenue, profitability and other matters;
- duties and responsibilities as well as the executive's experience; and
- the types and amount of each element of compensation to be paid to the named executive officer.

Cash bonuses

The Chief Executive Officer is paid cash bonuses based on the discretion of the Compensation Committee and approval by the Board of Directors. We pay discretionary cash bonuses to our other named executive officers, which are recommended by the Chief Executive Officer. The cash bonuses, if any, are determined after the end of each fiscal year and may be paid annually, are intended to recognize and reward those named executive officers who have contributed meaningfully to our performance for the prior year. Both personal and the Company's performance are factors that the Board and Chief Executive Officer typically consider in deciding whether to award a cash bonus to a named executive officer and the amount of such bonus.

Long-term Stock-Based Compensation

Our long-term compensation program has historically consisted solely of stock options. Option grants made to executive officers are designed to provide them with incentive to execute their responsibilities in such a way as to generate long-term benefit to us and our stockholders. Through possession of stock options, our executives participate in the long-term results of their efforts, whether by appreciation of our Company's value or the impact of business setbacks, either company-specific or industry-based. Additionally, stock options provide a means of ensuring the retention of our executive officers, in that they are in almost all cases subject to vesting over an extended period of time.

Stock options provide executives with a significant and long-term interest in our success. By only rewarding the creation of stockholder value, we believe stock options provide our executive officers with an effective risk and reward profile. Although it is our current practice to use stock options as our sole form of long-term incentive compensation, the compensation committee reviews this practice on an annual basis in light of our overall business strategy, existing market-competitive best practices and other factors.

Stock options are granted periodically and are subject to vesting based on the executive's continued employment. Historically we have granted our executive officers a combination of incentive stock options that vest over a period of time or stock options that are immediately exercisable. Most options vest evenly over four years, beginning on the date of the grant.

Stock options are granted to our executive officers in amounts determined by the Compensation Committee in its discretion. Stock grants have not been formula-based, but instead have historically been granted taking into account a

mixture of the following qualitative factors: the executive's level of responsibility; the competitive market for the executive's position; the executive's potential contribution to our growth; and the subjective assessment of the professional effectiveness and capabilities of these executives.

Benefits

We provide the following benefits to our executive officers on the same basis as the benefits provided to all employees:

health and dental insurance;

life insurance;

short-and long-term disability; and

401(k) Plan (currently there is no employer matching)

These benefits are consistent with those offered by other companies and specifically with those companies with which we compete for employees.

Summary Compensation Table

The following table sets forth the compensation of our principal executive officer, our principal financial officer and our other executive officers for the fiscal years ended September 30, 2014, 2013 and 2012. We refer to these executive officers as our "named executive officers."

	Year	Salary ($) (c)	Bonus ($) (d)	Stock Awards ($) (e)	Option Awards ($) (f)(1)	Non-Equity Incentive Plan Compensation ($) (g)	Change in Pension Value and Nonqualified Deferred Compensation Earnings ($) (h)	All Other Compensation ($) (i)	Total ($) (j)
James A. Hayward	2014	343,269		—	3,530,437		—		3,873,706
Chairman, President and CEO	2013	319,974	150,000	—	—	—	—	—	469,974
	2012	242,334		—	—	—	—	—	242,334
Karol K. Gray	2014	310,962		—	207,043				518,005
CFO	2013	—		—	—	—	—	—	—
	2012	—		—	—	—	—	—	—
Judith Murrah	2014	250,000		—	195,691				445,691
CIO(3)	2013	81,731		—	—	—	—	—	81,731
	2012	—		—	—	—	—	—	
Ming-Hwa Liang	2014	140,000	2,000		211,826				353,826
CTO and Secretary	2013	140,000	10,000	—	—	—	—	—	150,000
	2012	140,000		—	—	—	—	—	140,000

(1) The amounts in column (f) represent the grant date fair value under ASC 718 based on the Black Scholes value of the options on the grant date.

(2) Ms. Gray was appointed as Chief Financial Officer effective October 14, 2013.

(3) Ms. Judith Murrah has been our Chief Information Officer since June 1, 2013. Ms. Murrah's annual salary is $250,000 and she received 33,333 options upon completing six months of employment in December 2013.

Grants of Plan-Based Awards

The following table provides information regarding grants of plan-based awards to our named executive officers during the year ended September 30, 2014:

Name	Grant Date	All Other Stock Awards: Number of	All Other Option Awards: Number of	Exercise or Base Price of Option Awards	Grant Date Fair Value of Stock and Option

		Shares of Stock or Units(1) (#)	Securities Underlying Options (#)	($/Sh)	Awards(3) ($)
James A. Hayward	10/17/2013(1)	—	833,334	$ 5.82	3,530,437
Karol K. Gray	12/10/2013(2)	—	8,334	$ 8.16	49,640
	4/14/2014(1)	—	33,334	$ 6.60	157,403
Judith Murrah	12/02/2013(1)	—	33,334	$ 7.02	170,871
	12/10/2013(2)	—	4,167	$ 8.16	24,820
Ming-Hwa Liang	10/17/2013(1)	—	50,000	$ 5.82	211,826

(1) Options are exercisable for five years with vesting at 25% each anniversary over four years from the date of grant.

(2) Options are exercisable for five years and vested immediately.

(3) These amounts represent the grant date fair value under ASC 718 based on the Black Scholes value of the options on the grant date.

Outstanding Equity Awards at Fiscal Year-End

The following table shows information concerning outstanding equity awards as of September 30, 2014 held by the Named Executive Officers.

	Option Awards				
Name	Number of Securities Underlying Unexercised Options (#) Exercisable		Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date
James A. Hayward	283,334	(1)	—$	3.00	5/27/2015
	166,667	(2)	—	3.60	7/1/2015
	666,667	(3)	—	3.51	7/11/2018
	—	(4)	833,334	5.82	10/16/2018
Karol K. Gray	15,900	(8)	—	4.08	11/29/2016
	6,175	(8)	—	10.79	11/29/2017
	11,112	(8)	—	5.82	10/16/2018
	8,334	(5)		8.16	12/09/2018
	—	(6)	33,334	6.60	04/13/2019
Judith Murrah	—	(7)	33,334	7.02	12/01/2018
	4,167	(5)	—	8.16	12/09/2018
Ming-Hwa Liang	116,667	(1)	—	3.00	5/27/2015
	166,667	(2)	—	3.60	7/1/2015
	—	(4)	50,000	5.82	10/16/2018

(1) On May 27, 2010, our named executive officers elected to forfeit certain stock options to purchase up to 483,333 shares of our common stock at an exercise price of $6.60 that were previously granted to them under the 2005 Incentive Stock Plan. In lieu of the forfeited options, our Board of Directors granted new stock options to such named executive officers to purchase up to 483,333 shares of our common stock at an exercise price of $3.00 under the 2005 Stock Incentive Plan which are fully vested and became exercisable on June 29, 2010 following approval by our stockholders to amend our certificate of incorporation to increase our authorized shares of common stock.

(2) On July 1, 2010, our Board of Directors granted nonstatutory stock options under the 2005 Incentive Stock Plan to each of our named executive officers. The options granted to the named executive officers vested with respect to 25% of the underlying shares on the date of grant, and the remaining will vest ratably each anniversary thereafter until fully vested on the third anniversary of the date of grant.

(3)

On July 11, 2011, our Board of Directors granted nonstatutory stock options under the 2005 Incentive Stock Plan to Dr. James A. Hayward, our Chairman, President and Chief Executive Officer. The options granted to Dr. Hayward vested 25% on the grant date and shall vest 37.5% on each of the next two anniversaries of the grant date, subject to Dr. Hayward's continuous employment through the applicable vesting date, and if our revenues for any fiscal quarter beginning after the date hereof are at least $1 million more than our revenues for the immediately preceding fiscal quarter, then vesting of the next 37.5% installment will accelerate (such that, if the $1 million increase is met in at least two quarters before the second anniversary of the option grant date, all of the options will have become fully vested as of the end of the second quarter for which the $1 million increase is met).

(4) On October 17, 2013, we granted Dr. James A. Hayward, and Dr. Ming-Hwa Liang options to purchase 833,334 and 50,000 shares of our common stock, respectively, at an exercise price of $5.82 per share for five years with vesting at 25% each anniversary for the next four years.

(5) On December 10, 2013, we granted an aggregate of 35,433 options to purchase our common stock at an exercise price of $8.16 per share for five years to employees, with immediate vesting. As part of this grant, Ms. Gray and Ms. Murrah were granted 8,334 and 4,167 options, respectively.

(6) On April 14, 2014, we granted 33,334 options to purchase our common stock at an exercise price of $6.60 per share for five years to Ms. Gray with vesting at 25% each anniversary for the next four years.

(7) On December 2, 2013, we granted 33,334 options to purchase our common stock at an exercise price of $7.02 per share for five years to Ms. Murrah with vesting at 25% each anniversary for the next four years.

(8) These options were granted to Ms. Gray for her service on the Board of Directors prior to her appointment as the Chief Financial Officer.

Option Exercises and Stock Vested

During fiscal 2014, none of our named executive officers exercised options or acquired shares upon vesting of stock awards.

Pension Benefits

None of our named executive officers participates in or has account balances in qualified or non-qualified defined benefit plans sponsored by us.

Nonqualified Contribution Plans

None of our named executive officers participates in or has account balances in non-qualified defined contribution plans maintained by us.

Deferred Compensation

None of our named executive officers participates in or has account balances in deferred compensation plans or arrangements.

Employment Agreement with Dr. James A. Hayward

We entered into an employment agreement dated July 11, 2011, with Dr. James A. Hayward, our Chairman, President and Chief Executive Officer. The agreement provides that Dr. Hayward will be our Chief Executive Officer, and will continue to serve on our Board of Directors. The initial term of his employment was from July 1, 2011 through June 30, 2014, which automatically renews for one-year periods subject to ninety days' prior notice of non-renewal by either party. Dr. Hayward's employment agreement was automatically renewed for a one-year period. Dr. Hayward received an initial annual salary of $225,000, subject to annual review. On November 30, 2012, our Board of Directors increased Dr. Hayward's annual salary to $350,000. The agreement provided that Dr. Hayward's annual salary will be increased to $350,000 per annum after the first quarter in which our revenues exceed $1 million for such quarter. The Board of Directors, acting in its discretion, may grant annual bonuses to Dr. Hayward. Dr. Hayward will be eligible for a special cash bonus of up to $750,000, 40% of which will be payable if and when annual revenue reaches $6 million and 10% of which would be payable for each $2 million of annual revenue in excess of $6 million. On November 30, 2012, the Board granted a cash bonus of $150,000 to Dr. Hayward payable upon the closing of an additional financing of $5.5 million by an investor. Dr. Hayward will be entitled to certain benefits and perquisites and will be eligible to participate in retirement, welfare and incentive plans available to our other employees.

On July 11, 2011, Dr. Hayward was granted options to purchase 666,667 shares of our common stock at an exercise price per share equal to $3.51. The options vested as follows: 25% on the grant date, and 37.5% on each of the next two anniversaries of the grant date, subject to Dr. Hayward's continuous employment. If our revenues for any fiscal quarter increased by more than $1 million over the prior fiscal quarter, then the vesting date for the next 37.5% tranche would be accelerated. We also granted 250,000 shares of our common stock to Dr. Hayward.

The agreement with Dr. Hayward also provides that if he is terminated before the end of the initial or a renewal term by us without cause or if Dr. Hayward terminates his employment for good reason, then, in addition to previously earned and unpaid salary, bonus and benefits, and subject to the delivery of a general release and continuing compliance with restrictive covenants, Dr. Hayward will be entitled to receive a pro rata portion of the annual bonus he would have received if employment had continued through the end of the year of termination; salary continuation

payments for two years following termination equal to the greater of (i) three times base salary or (ii) two times base salary plus bonus; company-paid COBRA continuation coverage; continuing life insurance benefits (if any) for two years; and extended exercisability of outstanding vested options (for three years from termination date or, if earlier, the expiration of the fixed option term). If termination of employment as described above occurs within six months before or two years after a change in control of the company, then, in addition to the above payments and benefits, all of Dr. Hayward's outstanding options and other equity incentive awards will become fully vested and Dr. Hayward will receive a lump sum payment of the amounts that would otherwise be paid as salary continuation. In general, a change in control will include a 30% or more change in ownership of the company.

Upon termination due to death or disability, Dr. Hayward will generally be entitled to receive the same payments and benefits he would have received if his employment had been terminated by the Company without cause (as described in the preceding paragraph), other than salary continuation payments.

Effective June 21, 2014, Dr. Hayward's annual salary was voluntarily reduced by $50,000. This salary reduction will be accrued and repaid when the Company reaches $3,000,000 in sales for two consecutive quarters or the Company has net income at the end of any fiscal year.

Potential Payments upon Termination of Employment or a Change of Control

There is a change-in-control provision included in Dr. Hayward's employment agreement, and we are obligated to pay severance or other enhanced benefits to him upon termination of his employment. For additional information, see "Employment Agreement" above.

Dr. Hayward would have been entitled to an estimated payment of $900,000 (three times his annual base salary) if his employment was terminated on September 30, 2014 by us without "cause" or by Dr. Hayward for "good reason" and extended exercisability of outstanding vested options (for three years from termination date or, if earlier, the expiration of the fixed option term).

In the context of a "change in control" of the company had it occurred on September 30, 2014, and within six months before or two years after such change in control Dr. Hayward's employment was terminated by us without "cause" or by Dr. Hayward for "good reason", he would have been entitled to an estimated payment and benefits of $900,000 (three times his annual base salary). In addition to the above payments and benefits, all of Dr. Hayward's outstanding options and other equity incentive awards would have become fully vested and Dr. Hayward would have received a lump sum payment of the amounts that would otherwise be paid as salary continuation.

Director Compensation Fiscal 2014

During the fiscal year ended September 30, 2014, we did not provide any cash compensation to our non-employee directors for their service on our Board of Directors. On November 30, 2011, the Board approved the recommendation from the Compensation Committee that each of the non-employee directors shall annually receive, for as long as they are a member of the Board, a 5-year stock option, fully vested after one year, to purchase a number of shares of common stock having a fair value of $60,000 as determined using the Black Scholes value, or as determined by the Compensation Committee. Additionally, the Board approved the recommendation from the Compensation Committee and Dr. James Hayward that stock options to purchase shares of our common stock having an aggregate fair value of $40,000 using the Black Scholes value be granted to certain non-employee directors.

Fees Earned or Paid in Cash ($)