

APPLIED DNA SCIENCES INC  
Form 10-K  
December 14, 2015

**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, 2015

**“ 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      (I.R.S. Employer  
incorporation or organization)      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:

| <b>Title of Each Class</b>        | <b>Name of each Exchange<br/>on Which Registered</b> |
|-----------------------------------|--|
| Common Stock, \$0.001 par value   | The NASDAQ Capital Market                            |
| Warrants to purchase Common Stock | The 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.

Yes     No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes     No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes     No

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

Yes     No

Indicate by check mark if disclosure of delinquent filers 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.

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

Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller reporting company

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

The aggregate market value of the Registrant’s voting and non-voting common stock held by non-affiliates of the Registrant, based upon the last sale price of the common stock reported on The Nasdaq Capital Market as of the last business day of the Registrant’s most recently completed second fiscal quarter (March 31, 2015), was approximately \$38 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, 2015 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 8, 2015, the Registrant had outstanding 24,064,092 shares of common stock, par value \$0.001 per share.

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I

## PART I

### **Forward-looking Information**

This Annual Report on Form 10-K (including but not limited to Item 7, “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 (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and are subject to the “safe harbor” created by those sections. In addition, we may make forward-looking statements in other documents filed with or furnished to the Securities and Exchange Commission (“SEC”), and our management and representatives may make forward-looking statements orally or in writing to analysts, investors, representatives of the media and others. Forward-looking statements can generally be identified by the fact that they do not relate strictly to historical or current facts and include, but are not limited to, statements using terminology such as “can”, “may”, “could”, “should”, “assume”, “forecasts”, “believe”, “designated to”, “will”, “plan”, “anticipate”, “estimate”, “potential”, “position”, “predicts”, “strategy”, “guidance”, “intend”, “seek”, “budget”, “project” 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 are based on our current expectations, assumptions, estimates and projections about our business and our industry and are subject to known and unknown risks, uncertainties and other factors. Accordingly, our actual results and the timing of certain events may differ materially from those expressed or implied in such forward-looking statements due to a variety of factors and risks, including, but not limited to, those set forth under Item 1, “Business,” Item 1A, “Risk Factors,” Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and our consolidated financial statements and notes thereto included in this report, those set forth from time to time in our other filings with the SEC, and the following factors and risks:

- our short operating history, relatively new business model and lack of significant previous revenues;
- our history of net losses, which may continue, and our potential inability to achieve profitability;

the possibility that we may require additional financing, which may involve the issuance of additional shares of common stock or securities exercisable for common stock and dilute the percentage of ownership held by our current stockholders;

difficulty in obtaining, or inability to obtain, additional financing if such financing becomes necessary, including due to constraints on our ability to raise and/or increased cost of raising capital, as a result of our inability to timely file the audited historical financial statements of Vandalia Research, Inc.;

- volatility in the price and/or trading volume of our common stock;

- future short selling and/or manipulation of the price of our common stock;

- our inability to implement our short and long-term strategies;

- loss of strategic relationships;

- dependence on a limited number of key customers;

- lack of acceptance of our products and services by potential customers;

- potential failure to introduce new products and services;

difficulty or failure in expanding our sales, marketing and support organizations and our distribution arrangements necessary to enable us to reach our goals with respect to increasing market acceptance of our products and services;

inability to continue to retain the services of Dr. Hayward, our Chief Executive Officer, or Dr. Liang, our Chief Scientific Officer;

- inability to compete effectively in the industries in which we operate;

- lack of success in our research and development efforts for new products;

- failure to manage our growth in operations and acquisitions of new technologies and businesses;

- inability to protect our intellectual property rights;

- intellectual property litigation against us or other legal actions or proceedings in which we may become involved;
- unauthorized disclosure of sensitive or confidential data (including customer data) and cybersecurity breaches; and
- adverse changes in worldwide or domestic economic, political or business conditions.

All forward-looking statements and risk factors included in this Annual Report on Form 10-K 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. If we do update one or more forward-looking statements, no inference should be drawn that we will make updates with respect to other forward-looking statements or that we will make any further updates to those forward-looking statements at any future time.

Forward-looking statements may include our plans and objectives for future operations, including plans and objectives relating to our products and our future economic performance, projections, business strategy and timing and likelihood of success. Assumptions relating to the foregoing involve judgments with respect to, among other things, future economic, competitive and market conditions, future business decisions, and the time and money required to successfully complete development and commercialization of our technologies, all of which are difficult or impossible to predict accurately and many of which are beyond our control.

Any of the assumptions underlying the forward-looking statements contained in this Annual Report on Form 10-K could prove inaccurate and, therefore, we cannot assure you that the results contemplated in any of such forward-looking statements will be realized. Based on the significant uncertainties inherent in these forward-looking statements, the inclusion of any such statement should not be regarded as a representation or as a guarantee by us that our objectives or plans will be achieved, and we caution you against relying on any of the forward-looking statements contained herein .

#### **Note**

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.

Our trademarks in the United States include SigNature® DNA, fiberTyping®, DNAnet®, digitalDNA® and Sentry. All trademarks, service marks and trade names included or incorporated by reference in this Annual Report on Form 10-K are the property of their respective owners, including, without limitation, SmokeCloak®, a mark owned by MSS



Professional A/S and/or its affiliates, and PimaCott™, a mark owned by Divatex Home Fashion, Inc. and/or its affiliates.

## ITEM 1. BUSINESS.

### Overview

Using biotechnology as a forensic foundation, we provide plant-based DNA security and authentication solutions and services that can help protect products, brands, entire supply chains, and intellectual property of companies, governments and consumers from theft, counterfeiting, fraud, and diversion. Whether for 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 plant-based DNA technologies are designed to deliver what we believe to be the greatest levels of security, deterrence and legal recourse strength. Through our recent acquisition of substantially all of the assets of Vandalia Research, Inc. (“Vandalia”), we are also engaged in the large-scale production of specific DNA sequences using the polymerase chain reaction (“PCR”).

SigNature® DNA, SigNature T DNA, fiberTyping®, DNAnet® Sentry, digitalDNA®, and SmokeCloak® DNA are our principal anti-counterfeiting and product authentication solutions which can be used in numerous industries, including but not limited to, microcircuits and other electronics, cash-in-transit (transport and storage of banknotes), textiles and apparel, home asset marking, automotive, printing and packaging, homeland security, law enforcement, identity cards and other secure documents, industrial materials, agrochemicals, pharmaceuticals, consumer products, food and beverage, fine wine, and art and collectibles. The large-scale production of specific DNA sequences is used in the diagnostics and reagent industries.

***SigNature® DNA.*** SigNature DNA is our platform ingredient, at the core of all our security solutions. The vehicle which carries SigNature DNA is custom designed to suit the particular application for which it is being used. Exhaustive development efforts have yielded a flexible and durable marker with all the accuracy provided by nature. SigNature DNA 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 markers now exist in the public domain on items ranging from consumer product packaging to microcircuits to guitars. We believe that no markers have ever been copied.

***SigNature T DNA and fiberTyping.*** There is one common thread that runs through the global textile industry: success breeds counterfeiting and diversion. SigNature T DNA markers are used for brand protection efforts and raw material, source compliance programs. For example, cotton fibers can be tagged at source, verified as “American grown” and then traced through every step of the supply chain. Our patented genotyping platform, known as “fiberTyping®”, is used before tagging with SigNature T botanical DNA. fiberTyping is employed to identify the genus

and species of the fibers before they are tagged with SigNature T DNA. fiberTyping cannot be used to track a specific cotton batch through the supply chain, a function which can only be accomplished by SigNature T DNA system.

***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 DNA marker that can be used to definitively link evidence and offenders to specific crime scenes and help return stolen or lost property to its rightful owner. As the crime is investigated, the fluorescing DNA marker can assist police in linking the offender and stolen items to a specific crime scene, creating a greater ability to identify and convict.

***Sentry.*** Sentry intruder tagging systems help to expand and strengthen any security effort by providing a means of directly linking criminals to crimes. Each unit is designed to be unique to each store, warehouse, or sting operation, allowing the police and prosecutors to link criminals to their crimes. In the event of a crime, the fleeing offender is sprayed with an indelible, fluorescing DNA taggant. As the crime is investigated, the fluorescing DNA marker can assist police in linking the offender and stolen items to a specific crime scene, creating a greater ability to identify and convict. Whether deployed as 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. While any commercial/retail establishment could benefit from the addition of a Sentry system, ideal areas of use include: banks, ATMs, pharmacies, jewelry stores, convenience stores, pawn brokers and gun shops.

***digitalDNA.*** digitalDNA is a software platform that enables customers to manage the security of company-marked goods from point of marking to point of authentication or validation to end of life. The base platform is configurable to customer requirements which differ by vertical market, company business process and IT environment. Basic functions offered include DNA inventory management, program training and communications, database of marked items information, associated documents and images, chain of custody and location tracking, sample authentication processing and Certificate of DNA Analysis downloads, and other administrative functions. Architected for either cloud or local operation, the system supports mobile data capture using bar codes or other technologies. Of special note is the power of embedding our proprietary DNA into tag ink or substrate as the forensic backstop for tags which can be easily copied. The system is architected as the controller and repository for other validation and authentication devices such as our multi-mode reader (prototype), and other third party devices such as DNA readers and is designed to share data with third party applications through standard interfaces.

***SmokeCloak DNA.*** When deployed in pharmacies, banks, commercial or retail locations, SmokeCloak DNA helps protect staff, customers and assets. A thick and disorienting fog wards off offenders and deposits a unique, location specific DNA marker on skin, clothing and stolen items. The fog and DNA markers have no negative side effects while serving as a strong crime fighting and loss prevention tool.

***Large-scale production of specific DNA sequences using PCR.*** Our Triathlon™ PCR systems allow for the large-scale production of specific DNA sequences. The systems are self-contained and modular, can work together in mass production or can be used individually throughout the world, offering the advantage of delivering DNA locally and securely. These DNA sequences are being used by customers as a diagnostic and reagent.



## Corporate History

We are a Delaware corporation, which was initially organized in 1983 under the laws of the State of Florida as Datalink Systems, Inc. In 1998, we reincorporated in the State of 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](http://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.

## Industry Background

Counterfeiting, product diversion, and leaky supply chains create significant and growing problems to companies in a wide range of industries as well as governments and individuals worldwide. They are all truly global problems and they are problems that appear to be increasing. Counterfeit products are spreading to legitimate supply chains, as counterfeiters become more security savvy. Leaky supply chains allow materials to get diluted, diverted or counterfeited.

The cost of illicit trade to the global economy is considerable, if difficult to state with absolute precision. Counterfeiting and piracy alone will cost the global economy up to an estimated \$1.77 trillion in 2015 (ICC-Business Action to Stop Counterfeiting and Piracy, “Global Impacts Study” (February 2011)). In fiscal 2013, the Department of Homeland Security seized counterfeit goods valued at over \$1.7 billion at U.S. borders (International Anti-Counterfeiting Coalition, “Counterfeiting Costs Everyone” (2015)). In that same time period, the European Union seized \$1 billion of fake products (The Economist, “Counterfeit.com” (August 1, 2015)). Globally, the trafficking of counterfeit goods is much larger, and growing.

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 problems of counterfeiting, diversion and supply chain security, we expect that different systems will compete to be the leading standards by which products can be tracked across world markets. To insure only genuine products are entering the marketplace requires cutting edge technology. Historically, counterfeiting, product diversion, leaky supply chains 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 and 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 plant-based DNA 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. DNA is at the core of all our security solutions. 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). 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). This in-lab forensic testing for authenticity results in an expert witness Certificate of DNA Authentication (CODA).

### ***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 individual products or items. Each individual marker is recorded and stored in a secure database so that we can later detect it. A single SigNature DNA marker will support up to 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 markers 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 markers are 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 Markers can be used in a broad variety of media, such as inks, dyes, textile treatments, thermal ribbon thread, laminates, glues, threads, varnishes, adhesives and metal coatings.

#### *Broadly Applicable and Ingestible*

Our SigNature DNA markers can be embedded into almost any consumer product, and virtually any other item. In October 2011, the U.S. Food and Drug Administration (the “FDA”) published a Final Guidance document on the use of so called “Physico-Chemical Identifiers” (PCIDs). Accordingly, we believe that SigNature DNA is able to be used in drugs at levels of approximately 1 part per trillion (1 in  $10^{12}$ ); this level of SigNature DNA is less than 1/100,000th the level of DNA considered permissible as a contaminant in oral doses. Any PCID that satisfies the general principals established in the FDA Guidance is highly likely to be acceptable for any FDA regulated product, except for those subject to an FDA-approved New Drug Application. The FDA Guidance stipulates that a PCID should be pharmacologically inactive and present no risk of adverse reaction. The PCID cannot affect the efficacy of the drug. In addition, 11 categories of information about the PCID must be satisfactorily addressed. We believe SigNature DNA fulfilled all of these requirements, and is applicable to food and cosmetics.

#### *SigNature T DNA and fiberTyping*

Our scientific team has patented and developed 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 products labeled Pima or Extra Long Staple cotton, we have developed proprietary technologies to differentiate between *G. barbadense* DNA and *G. hirsutum* DNA in cotton. In the process, we were also able to develop an approach to attach an exogenous DNA marker to a finished textile product (SigNature T DNA).

### *SigNature T DNA*

SigNature T DNA is a unique tagging and authentication system specifically designed for textiles and apparel. This technology allows for better quality control and assurance at any point in the supply chain.

Fiber, yarn, fabric, and garment labels can be protected and identified based on a unique, secure and enduring SigNature T DNA marker. Specially engineered to adhere tenaciously to any kind of textile substrate, including natural and synthetic fibers, SigNature T DNA markers are resistant to standard textile production conditions, and cannot be copied. The result: an enduring forensic identity marker that remains present from fiber stage through to the finished product.

SigNature T DNA markers are precision-engineered and based on plant DNA. Additional layers of protection and complexity are added to the marker in a proprietary manner. In fibers and fabrics, SigNature T DNA markers cannot be removed even by harsh and prolonged washes. Similarly, SigNature T DNA markers cannot be transferred from one garment to another. SigNature T DNA markers 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 or other attribute such as brand owner. Our SigNature T DNA markers can easily be applied to raw cotton fiber, thread, yarn, woven labels or to the finished garment. SigNature T DNA is robust, and it can be formulated to be resistant to wash out treatments. SigNature T DNA marked textile and apparel products are fully authenticated by our scientific team in our laboratories to ensure that they are truly genuine.

### *fiberTyping*

fiberTyping is not a marker, but a test of native cotton fiber (only), which gives a clear result that determines whether the intended cotton DNA is present in your fiber, yarn or fabric. Samples from the primary material are sent to our forensic labs for DNA analysis and authentication. 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<sup>®</sup>, to verify that the intended Extra Long Staple cotton fibers are used in the finished product. Just as a person's DNA specifies all of what we believe to be their unique qualities, biomaterials typically contain genomic DNA or fragments thereof that can be utilized to authenticate cotton type. 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 patent protected 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 made from the fibers and textiles as labeled. Biomaterials can now be tracked from field to final purchase guaranteeing the identity 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 T DNA and fiberTyping solutions cover the forensic authentication market for textiles and secure systems and protocols developed may be applicable to multiple industry verticals, and can mark and authenticate products at every stage of their life cycle, from beginning to end.

### ***DNAnet***

Recognizing that DNA-based evidence is the cornerstone of modern-era law enforcement, we have developed what we believe to be the ultimate crime fighting tools – currently being used in Home Asset and Vehicle marking.

### ***Home Asset Marking***

We have created what we believe to be an elegant and ingenious solution for home security. A single container of DNAnet contains an indelible and invisible liquid containing a unique, plant-based DNA marker that is specific to each owner. If any of the items to which DNAnet marks have been applied are recovered during normal police operations, police can identify the property as stolen, link the criminals to the crime scene, and facilitate that stolen property is returned to its rightful owner. Home owners receive warning decals to use on windows, doors and vehicles to enhance the deterrent value of the DNA Home Asset Marking program.

### *Vehicle Marking*

DNAnet® helps to expand and strengthen any vehicle security effort by providing a means of directly linking vehicles and vehicle parts to crimes. Cars and parts are tagged with an indelible, fluorescing DNA-marked substance. As auto crime is investigated, the fluorescing DNA marker can assist police in linking the offender and stolen items to a specific crime scene, creating a greater ability to identify and convict. DNAnet helps facilitate conviction, and establishes a heightened level of deterrence.

### *Sentry*

Sentry 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, fluorescing DNA taggant. As the crime is investigated, the fluorescing DNA marker can assist police in linking the offender and stolen items to a specific crime scene, creating a greater ability to identify and convict.

### *digitalDNA*

digitalDNA is a software platform that enables customers to manage the security of company-marked goods from point of marking to point of authentication or validation to end of life. The base platform is configurable to customer requirements which differ by vertical market, company business process and IT environment. Basic functions offered include DNA inventory management, program training and communications, database of marked items information, associated documents and images, chain of custody and location tracking, sample authentication processing and Certificate of DNA Analysis downloads, and other administrative functions. Architected for either cloud or local operation, today's system supports mobile data capture using bar codes or other technologies. Of special note is the power of embedding our proprietary DNA into tag ink or substrate as the forensic backstop for tags which can be easily copied. The system is architected as the controller and repository for other validation and authentication devices such as our multi-mode reader (prototype), and other third party devices such as DNA readers, and is designed to share data with third party applications through standard interfaces.

### *SmokeCloak DNA*

Recognizing that DNA-based evidence is the cornerstone of modern-era law enforcement, we work with strategic partners to offer enhanced crime-fighting tools that repel the initial threat while marking offenders with a forensic tag that definitively links them to the crime scene. Increased conviction numbers and a heightened level of deterrence result from a DNA-fortified approach to crime prevention. When deployed in pharmacies, banks and commercial/retail locations, SmokeCloak DNA helps protect staff, customers and assets. A thick and disorienting fog wards off offenders and deposits a unique, location-specific DNA marker on skin, clothing and stolen items. The fog and DNA marker have no negative side effects while serving as a strong crime fighting and loss prevention tool.

### *Large-scale production of specific DNA sequences using PCR.*

Our Triathlon™ PCR systems allow for the large-scale production of specific DNA sequences. The systems are self-contained and modular, can work together in mass production or can be used individually throughout the world, offering the advantage of delivering DNA locally and securely. These DNA sequences are being used by customers as a diagnostic and reagent and provide us the opportunity to cross-sell our DNA-based supply chain security solutions. A new capacity for us will be the ability to manufacture longer DNA sequences valuable in gene therapy, DNA vaccines and diagnostics. These types of DNA are distinct from our DNA security markers and represent a potential new entry into medical markets, where we believe there are opportunities for our broader platform.

### **Our Strategy**

To date, the substantial portion of our revenues has been generated from sales of our SigNature DNA and SigNature T DNA, our principal anti-counterfeiting and product authentication solutions. We expect to continue to grow revenues from sales of our SigNature DNA, SigNature T DNA, DNAnet, Sentry, digitalDNA and SmokeCloak DNA offerings as well as from the large-scale production of specific DNA sequences using PCR. 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, 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 to develop a new line of detection technologies that will provide faster and more convenient ways to authenticate our 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 marker against copying as well as to provide more information from each marker at a user's time and location of decision. In particular a next-generation optical mark reader, coupled with enhanced chemical markers and image capture, 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, and leaky supply chains. 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, home asset marking, automotive, printing and packaging businesses and diagnostics and reagents. In the future, we plan to expand our focus to include homeland security, law enforcement, identification cards and other secure documents, industrial materials, agrochemicals, pharmaceuticals, consumer products, food and beverage, fine wine, and arts and collectibles. The International Chamber of Commerce ("ICC") issued a report on counterfeiting and piracy stating that the global

economic and social impacts of counterfeiting and piracy could reach \$1.7 trillion in 2015 (ICC, 2011).

*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. \$1.5 billion of products in the \$300 billion semiconductor market is believed to be counterfeit (U.S. Government accountability office, 2011). 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.

Counterfeit microcircuits are a major concern in weapons procurement. The chips, which control targeting accuracy and other critical parameters, can wreak havoc if they do not perform to specifications. They can also be a means of sabotaging weapon systems if covertly supplied by a hostile government through seemingly legitimate companies.

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).

The problem is not limited to the defense industry. Consumer and industrial businesses are losing approximately \$250 billion each year because of counterfeit components. The automotive industry is also losing \$3 billion in sales and the semiconductor business is taking a \$75 billion hit due to counterfeit parts (National Technical Systems, "The Global Impact of Counterfeit Electronic Components" (August 18, 2015)).

*Our Market Response*

On November 15, 2012, the Defense Logistics Agency (“DLA”), an agency within the U.S. Department of Defense, began to require that defense contractors provide items that have been marked with 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.

Beginning on December 15, 2014, DLA’s Electronic Test Laboratory in Columbus, Ohio began DNA marking all FSC 5962 microcircuits. This change created 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 and that contract has been extended for one year through November 12, 2016.

The current program is a 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 is 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 (approximately \$755 million as of December 2015), or £1.4 billion per day (approximately \$2.2 billion) (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 (approximately \$151.1 million) in security equipment and devices. Although the industry has seen a 30% decline in attacks on cash-in-transit couriers from 2012 to 2013, serious injury is still a very real threat. Almost 25% of attacks in 2013 in the U.K. resulted in some kind of injury and the proportion of attacks where firearms were used has risen 4% from 2012 to 2013 (Professional Security Magazine Online, “Cash in Transit Attack Stats” (May 15, 2014)) making it more important than ever to be able to link the criminals to the crime. Since 2009, the number of CViT convictions attributed to the use of SigNature DNA in cash boxes has risen to 101, with prison sentences of over 470 years. SigNature DNA forensic markers are helping the UK Police to identify stolen cash and to link the evidence directly to the perpetrators. 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”).

### *Our Market Response*

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. We are working with a partner to incorporate our SigNature DNA markers into glue based systems to be used in the cash-in-transit industry.



In August 2015, we signed a five-year exclusivity agreement with Patronus Systems Ltd, a company based in West Sussex, U.K. Under the terms of the agreement, we will supply our SigNature® DNA for use with Patronus Systems' new bonding agent for the cash handling industry. Patronus Systems will be adding SigNature DNA to every single ATM cassette / cash container to ensure recovered monies can be returned to owners and that law enforcement agencies have the forensic evidence to help them convict criminals.

To date, the use of SigNature DNA in the cash handling industry has allowed our products to facilitate the convictions of more than 100 criminals in the U.K. involved in cash-in-transit crime with aggregate prison sentences of over 470 years. SigNature DNA has been used since 2009 in Europe within the ink and / or smoke systems of Intelligent Bank Note Neutralisation Systems ("IBNS"), more commonly known as cash boxes and ATM cassettes. Unique, botanical DNA marks are incorporated into each IBNS during manufacture.

### *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, fiberTyping and digitalDNA 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 and synthetic product industries and have begun to introduce our products to these markets as well.

The market value of counterfeit clothing has been estimated to be \$12 billion as of 2012 (Havoscope and the Coalition Against Counterfeiting and Piracy). Moreover, it is estimated that over 10% of world trade in fashion is counterfeit. It is further estimated that legitimate industry loses approximately €26.3 billion of revenue annually due to the presence of counterfeit clothing, footwear and accessories in the EU marketplace, corresponding to 9.7% of the sector's sales. If the knock-on effects on other industries and on government revenue are included, when both direct and indirect effects are considered, counterfeiting in this sector causes approximately €43.3 billion of lost sales to the EU economy, which in turn leads to employment losses of 518,281 and a loss of €8.1 billion in government revenue. (Office of Harmonization in the Internal Market, "The Economic Cost of IPR Infringement in the Clothing, Footwear and Accessories Sector" (July 21, 2015)) 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 has said that counterfeit fabrics cost one billion dollars every year in lost tariffs to the United States (Marketplace, Jeff Horwich; "Clamping down on counterfeit textiles" (transcript (May 21, 2010))).

### *Our Market Response*

Our SigNature T DNA anti-counterfeiting system for DNA marking and authentication of cotton fibers is currently in use by our customers. We are now marking product in the United States to assure integrity of the textile supply chain. Our SigNature T DNA 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, known as PimaCott®, 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. SigNature T DNA markers are also beginning to be used to mark Upland cotton, under the HomeGrown® trademark. As the cotton ginning in the U.S. takes place between September and December each year, it is possible that revenues from this business will be seasonal.

In March 2014, we announced that we had entered into a mutual license agreement with Divatex Home Fashion, Inc. ("Divatex"), a leading supplier of home textiles, to commercialize what we believe to be the world's first supply-chain-DNA-verified cotton product. Divatex is responsible for marketing, while we license our patented SigNature T DNA technology for application to ensure the veracity of the product. See also the information under the caption "—Distribution of our Products and Commercial Agreements—Divatex." In June 2015, we announced that we had signed a memorandum of understanding with Louis Dreyfus Commodities, one of the world's largest cotton merchandisers, to provide secure logistic supply chain support for the tagging and authentication of cotton fibers with SigNature T DNA derived from botanical genomes. In October 2015, we announced that we had shipped SigNature T DNA to tag 100 million pounds of cotton in total during our fiscal year ending September 30, 2015.

### *Home Asset Marking*

Approximately 2 million home burglaries are reported each year in the United States, with a home burglary occurring every 13 seconds. (Safeguard the World “Security Statistics” (2010)) 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. The DNAnet Home Asset Marking program provides a simple and cost-effective way for residents to deter crime and protect their property, a way for law enforcement to identify the rightful owners of lost or stolen property, and a way to tell criminals...stay away because you will get caught! Consumers can purchase a marking kit and apply a DNAnet® mark to multiple items of property. In the event of theft, police or personnel with ultraviolet light equipment can reveal the DNAnet mark, which thus permits the stolen property to be returned to the owner and serves as valuable evidence to increase the likelihood that perpetrators will be convicted.

### *Our Market Response*

Since program launch of the DNA Home Asset Marking program in the U.S. in April, 2015, there are 67 communities in 4 states participating in the DNA Home Asset Marking program. This means that the police departments have been trained and equipped to identify marks on recovered property. Currently, kit sales are being promoted by both the municipalities, local law enforcement agencies and the company to steadily increase the number of marked valuables in each of these communities.

We are also working with the Swedish National Police, providing DNAnet property marking kits as part of a major initiative to reduce crime in targeted Swedish neighborhoods.

In addition to private individuals and households and municipalities and law enforcement agencies, we believe that a market opportunity may exist for our home asset marking and similar solutions using DNAnet with respect to small and medium-sized businesses, larger enterprises, home owner associations and insurance groups.

### *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, 2014, they had received 6.8 million records of reported stolen motor vehicles from 128 different countries (Interpol — Database Statistics). According to the FBI, a motor vehicle was

stolen in the United States every 46 seconds in 2014 and the value of the stolen motor vehicles was more than \$4.5 billion. According to Plastics Today, automotive aftermarket parts are a huge business for counterfeiters, resulting in \$9 billion annually in vehicle recalls. (Plastics Today, "Material taggants provide protection from counterfeiting of plastic products" (September 21, 2015))

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 Market Response*

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 DNA marker 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, DNA-based marker is designed and applied to multiple locations on the vehicle. The DNA marker provides absolute identification for the vehicle, while also recording the name of the owner of that vehicle in a secure database. The markers 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.

### *Our Market Response*

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 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 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 our 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 DNA taggants.

We have entered into a Certified Partner Program with eight 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.

### *Diagnostics and Reagents*

DNA-based diagnostics is an emerging application area in the in-vitro diagnostics industry. DNA –protein adducts are popular across the medical diagnostics industry, where these molecules aid in the determination of the incidence of a suspected disease caused by an organism or pathogen. Based on the amount of target DNA present, probes can be used either directly to detect target DNA, facilitate the performance of targeting proteins or indirectly to target DNA through amplification that creates a number of copies of a specific nucleotide. Increased automation of diagnostic tests, discovery of new diagnostic markets, rising investments in pharmaceutical and pharmacogenomics research, and advancements in DNA array technologies are major growth facilitators for the DNA probes-based diagnostic products market.

The report by Allied Market Research titled, "DNA diagnostics Market (products, applications, techniques, end users and Geography) Global Size, Industry Analysis, Trends, Opportunities, Growth and Forecast, 2013 - 2020," indicates that the global DNA diagnostics market would reach \$19 billion by 2020 registering a compound annual growth rate ("CAGR") of 9.8% from 2014 to 2020. The potential to provide accurate diagnosis and cost effectiveness over alternative diagnostic techniques are factors that supplement the growth of the DNA diagnostics market. Recent figures suggest that globally, approximately 32.5 million people are living with cancer (as of 2012) and 35.0 million with HIV/AIDS (as of 2013). (International Agency for Research on Cancer, Cancer Fact Sheets, All Cancers (excluding non-melanoma skin cancer), Estimated Incidence, Mortality and Prevalence Worldwide in 2012; World Health Organization, Global Health Observatory (GHO) Data). These numbers are set to increase consistently; however, advanced automated DNA diagnostics technologies such as next generation sequencing could play a crucial role in diagnosing and curbing these diseases. (Allied Market Research, "DNA Diagnostics Market is Expected to Reach \$19 Billion by 2020" (August 26, 2014)).

### *Our Market Response*

DNA also plays a role in therapeutics such as gene therapy and DNA-based vaccines. Following our acquisition of substantially all the assets of Vandalia in September 2015, we are able to produce specific, high-quality DNA

sequences with the PCR production system known as Triathlon, which is well suited to meet these pharmaceutical and diagnostic needs. Cell-based DNA production methods are often complicated by impurities. In contrast, our PCR-based production method offers a high degree of purity and efficiency. See also the information set forth under the caption “—Recent Acquisitions—Vandalia Asset Acquisition.”

*Future Markets:*

*Homeland Security and Defense*

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 (“DoD”) 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). The problem is pervasive, with both expensive and inexpensive electronic parts being targeted. Counterfeit, or otherwise suspect electronic components, present a critical risk for the Department of Defense, where a malfunction of a single part could lead to system failures that can put soldier lives and missions at risk. 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.

*Our Market Response*

DNA-marking using our SigNature DNA marks, protects the consumer, the government and our servicemen 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.



### *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). The global anti-counterfeit packaging (security document and event ticketing) market generated revenue of \$22.8 billion in 2014 and is forecast to reach of \$38.3 billion by 2020, at a CAGR of 9.5%, over the forecast period (Allied Market Research, “Anit-Counterfeit Food Packaging Market is Expected to Reach \$62.5 Billion, Globally, by 2020” (May 28, 2015)).

### *Our Market Response*

Our 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 in applications 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;
- other important identity cards, official documents and security-related card; and

- tax stamps.

### ***Industrial Materials***

The global polyolefin market is witnessing high growth on 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), which possess similar properties to 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 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 CAGR of 4.4%.

### ***Our Market Response***

One way that industrial material suppliers are helping to thwart counterfeiters is through taggants, an anti-counterfeiting measure in which DNA markers are blended into the materials. These markers can help to identify whether or not the material is authentic and specified for that specific use. Adding DNA markers into industrial materials as an authentication measure can help secure the global supply chain.

In 2014, we and Borealis AG, a provider of polyolefins, have signed a term sheet for mutual development and cooperation regarding the supply of markers — and related additives — for polyolefin products. For more information, see “—Distribution of our Products and Commercial Agreements—Borealis Agreement.”

### ***Agrochemicals***

The agrochemical industry is faced with an increased prevalence of illegal trade, counterfeiting and brand piracy. From the adulteration and counterfeiting of leading pesticides with inferior products, to the substitution of genetically

modified seeds with low yield alternatives, crops are at risk more than ever. These issues threaten company reputations, supply systems, export markets and government tax revenues.

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.

#### *Our Market Response*

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, thus ensuring the integrity of the agrochemical supply chain.

#### *Pharmaceuticals*

Counterfeiting and diversion of medicines and medical products are global issues that affect all countries. These illegal activities threaten the health and welfare of the citizens who receive fake or substandard product, as well as

threaten the revenues of brand owners. These activities also undermine the efforts of the government to ensure the availability of affordable drugs to its citizens, thus enabling the proliferation of disease, which can lead to development of drug resistant pathogens.

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 \$19.6 billion as of December 2015), 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. The global pharmaceuticals and food anti-counterfeiting market is expected to reach \$160 billion by 2020. (Radiant Insights, Global Pharmaceuticals and Food Anti-Counterfeiting Market is Expected to Reach USD 160.32 Billion by 2020” (September 28, 2015))

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.

Nearly 40 percent of the drugs Americans take are made elsewhere, and about 80 percent of manufacturing sites of active pharmaceutical ingredients (APIs) used in drugs manufactured in the United States are located outside our borders—in more than 150 countries, many with less-sophisticated manufacturing and regulatory systems than our own. In addition to the sheer volume of imports and foreign facilities, there has been an increase in the variety of sources, shippers, methods of transportation, and supply chain complexity of products. Combined, these factors create great challenges to FDA and industry in ensuring that all drugs and drug components are high quality and travel safely throughout their complex supply chains. These factors also provide opportunities for criminals to adulterate drugs for economic or other malevolent reasons making it more important than ever that supply chains be secured around the world. (U.S. Food and Drug Administration, “Counterfeit Drugs: Fighting Illegal Supply Chains” (February 27, 2014))

#### *Our Market Response*

Drug supply chain security and serialization requirements affect 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 (Business Standard (August 20, 2012)). 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. Future application of our DNA identifiers may also include directly marking each pill or dose, allowing for verification of authenticity.

### ***Consumer Products***

Counterfeit items are a significant and growing problem with all kinds of consumer packaged goods, especially in the apparel industries. According to the World Customs Organization, European clothing and footwear companies lose an estimated € 7.5 billion per year to counterfeiting and Havoscope has valued the counterfeit clothing market at \$12 billion (Havoscope, — “Counterfeit Clothing Market Value: \$12 Billion”).

### ***Our Market Response***

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***

Thousands of tons of fake and sub-standard food and drink have been seized in 47 countries around the world as part of an INTERPOL-Europol coordinated operation. Operation Opson IV, conducted during December 2014 and January 2015, resulted in the seizure of more than 2,500 tons of counterfeit and illicit food, including mozzarella, strawberries, eggs, cooking oil and dried fruit (Europol, “Record Seizures of Fake Food and Drink in Interpol Europol Operation” (February 16, 2015)).

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 labeled 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 (“NCFPD”) has estimated the annual impact to the food industry from fraud to be \$10 billion to \$15 billion annually — often due to product disguising true country of origin, substitution, dilution and false labeling (NCFPD, Amy Kircher, “Economically Motivated Adulteration + FIDES” (2012)). Globally, the anti-counterfeit packaging market accounted for \$57.4 billion in 2013, which is forecast to generate revenue of \$142.7 billion by 2020 at 13.9% CAGR from 2013-2020 (Allied Market Research, “Anti-Counterfeit Food Packaging Market is Expected to Reach \$62.5 Billion, Globally by 2020” (May 28, 2015)).

### *Our Market Response*

We believe our SigNature DNA taggants and authentication program can help in the battle against counterfeit foods and beverages.

### *Fine Wine*

Vintners and purveyors of fine wine are also vulnerable to counterfeiting or product diversion. Per 2009 estimates, the loss in sales for businesses based in the United States due to counterfeit wines is approximately \$250 million annually, according to Chris Connelly, spokesman for the Global Intellectual Property Center (an affiliate of the U.S. Chamber of Commerce). Expert estimates place the total of wine counterfeiting at 5% of bottles sold (Wines & Vines, Susan Gannon, “New Ways to Fight Counterfeiters” (September 2009)).

### *Our Market Response*

We believe our SigNature DNA 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 DNA 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.

### *Our Market Response*

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 13 employees engaged in sales and marketing, of which six are directly involved with sales. We expect to hire additional sales directors and/or consultants and increase our use of channel and strategic partners 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 or the endogenous DNA. 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 approximately \$1.6 million and \$1.3 million on research and development activities for the fiscal years ended September 30, 2015 and 2014, respectively.

## Raw Materials and Suppliers

Our sources of raw materials include 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. Moreover, through our recent acquisition of substantially all of the assets of Vandalia Research, Inc., we are also engaged in the large-scale production of specific DNA sequences using PCR.

## 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.

We have entered into the following agreements and arrangements for the distribution of our products, among others:

**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. Beginning on December 15, 2014, DLA's Electronic Test Laboratory in Columbus, Ohio began DNA marking all FSC 5962 microcircuits. This created a centralized, streamlined DNA marking process within DLA. This contract has been extended through November 12, 2016.

**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 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 DoD 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 are performing 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 our existing SigNature DNA<sup>®</sup> 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.** 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 demonstrated the feasibility of the project. The contract provided for initial payments to us aggregating \$275,000, comprised of development and exclusivity fees. Funding for commercialization projects will be agreed on a case-by-case basis.

**3SI.** 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”. On March 28, 2014, 3SI granted a nonexclusive irrevocable license to us to make, have made, use, import, offer to sell and sell the apparatuses, systems and methods including to third parties for the life of such patents in the United States and in countries in the rest of the world where consent from the co-owner is not required.

**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 two purchase orders governed by these terms in the amount of \$111,000 thus far. The agreement severely restricts publicity on behalf of both parties.

**Divatex.** On March 25, 2015, we entered into a mutual license agreement with Divatex, a supplier of home textiles, to commercialize a supply-chain-DNA-verified cotton product. Divatex is responsible for marketing and we are responsible for licensing our SigNature T DNA technology for application to cotton at the ginning sites. Finished product made from this tagged fiber will be offered for sale under the PimaCott™ content-branded label. The initial term of the license agreement is two (2) years. The term of the license agreement will automatically renew for additional one (1) year periods, unless the agreement is earlier terminated in accordance with its terms. We also have the right to terminate the license agreement if Divatex does not complete the cumulative sale of 45 million pounds of product by the second anniversary of the license agreement.

We and Divatex have reached a confidential agreement on the amount of the licensing and related costs, which we bear, and the marketing and related costs, which Divatex bears, and an initial allocation of revenues (the “Revenue Sharing Model”). We collect the tagging fee from merchants and pay to Divatex its share of the tagging fee on a quarterly basis, based on when payments are received by us. Each party is entitled to be reimbursed for its respective agreed costs. The balance of the tagging fees received are to be divided equally between the parties, except for fees relating to the first 100 million pounds of cotton tagged, which will be distributed as set forth in the Revenue Sharing Model.

**Dreyfus.** In June 2015 we signed a memorandum of understanding (“MOU”) with Louis Dreyfus Commodities to provide secure logistic supply chain support for tagging and authentication of cotton fibers with SigNature T DNA.

## **Customer Concentration**

Our revenues earned from the sale of products and services for the fiscal year ended September 30, 2015 included an aggregate of 79% of our total revenues from two customers. These two customers accounted for approximately 90% of our total accounts receivable at September 30, 2015. No one customer represented greater than 10% of our total revenues for the fiscal years ended September 30, 2014 and 2013. 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.

## **Acquisitions**

**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.



***Vandalia Asset Purchase.*** On September 11, 2015, we entered into an Asset Purchase Agreement (the “Asset Purchase Agreement”) with Vandalia Research, Inc., a West Virginia corporation (“Vandalia”), and Derek A. Gregg, Vandalia’s Chief Executive Officer and a director of Vandalia, providing for the purchase of substantially all the assets (“Assets”) of Vandalia. We completed the acquisition of such Assets on the same date (“Vandalia Asset Acquisition”). The Vandalia Assets relate to the business of producing specific, high-quality DNA sequences with the PCR production system known as Triathlon™, including machinery, equipment, inventory, registered and other intellectual property, including patents, trademarks, trade secrets, domain names, copyrights and rights to software, and customer contracts. The Assets also include Vandalia’s rights under a patent license agreement between Marshall University Research Corporation (“Marshall”) and Vandalia pursuant to which we will pay to Marshall a royalty of one percent (1%) of the net revenues received by us from the sale of the licensed product. The purchase price for the Assets was \$1,500,000, which amount was determined through arms-length negotiation. Of this amount, \$500,000 was placed in an escrow account for a period of nine (9) months following the closing to satisfy Vandalia’s indemnification obligations with \$350,000 of this amount less the amount of any indemnification claims paid out of escrow to be released after sixty (60) days. Vandalia and Derek Gregg agreed not to compete with us and not to solicit our employees or customers for a period of five (5) years following the closing. Derek Gregg also entered into a consulting agreement with us for a term of twelve (12) months subject to earlier termination by either party upon thirty (30) days’ notice. Pursuant to the Asset Purchase Agreement, we entered into a month to month sublease with Vandalia of approximately 5,000 square feet at Vandalia’s office facility at an aggregate monthly rent of \$5,416. Purchase orders of \$237,000 were assigned by Vandalia to us. Prior to the Vandalia Asset Acquisition, we were a customer of Vandalia, paying approximately \$230,300 during fiscal 2014.

## **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, Alp Vision, Authentix, Brandwatch, ChromoLogic LLC, Collectors Universe Inc., Collotype, Data Dot Technology, De La Rue Plc., Digimarc Corp., DNA Technologies, Inc., DuPont Authentication Systems, ID Global, Informium AG, Inksure Technologies, Kodak, L-1 Identity Solutions, Media Sec Technologies, MicroTag Temed Ltd. Nanotech Security Corp., Nokomis, Inc., opSec Security Group plc., ProofTag SAS, SelectaDNA, SmartWater Technology, Inc., Sun Chemical Corp, Tracetag, TruTag, 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 34 patents, 75 patent applications, 27 registered trademarks, and 9 trademark applications, 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 2029. 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.

On March 28, 2014, 3SI granted a nonexclusive irrevocable license to us to make, have made, use, import, offer to sell and sell the apparatuses, systems and methods including to third parties for the life of such patents in the United States and in countries in the rest of the world where consent from the co-owner is not required. On September 11, 2015, as part of the Vandalia Asset Acquisition, Marshall University Research Corporation consented to the assignment and transfer of Vandalia's exclusive worldwide right and license under Patents to manufacture, use, produce, sell and have sold, market and develop Licensed Products or derivatives therefrom to us.

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.

Nevertheless, 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 a total of 60 employees, consisting of 50 full-time employees and 10 part-time employees, including 4 in management, 9 in research and development, 1 in life sciences, 2 in forensics, 6 in quality assurance/compliance, 4 in finance and accounting, 11 in operations, 13 in sales and marketing, 1 in human resources, 3 in shared services, 3 in information services, 1 in investor relations, 1 legal (intellectual property) and 1 in product development. We expect to increase our staffing dedicated to sales, research & development and forensics, manufacturing and production. 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. 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. . We generally do not enter into employment agreements requiring our employees to continue in our employment for any period of time, with the exception of our Chief Executive Officer, Dr. James A. Hayward. The initial term of Dr. Hayward's current employment agreement was from July 1, 2011 through June 30, 2014, and his employment agreement automatically renews for one-year periods subject to ninety days' prior notice of non-renewal by Dr. Hayward or us in accordance with the terms of the employment agreement. See the information set forth under the caption "Employment Agreement with Dr. James A. Hayward" in Item 11, "Employee Compensation."

## **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 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](http://www.sec.gov). Our website is located at: [www.adnas.com](http://www.adnas.com). 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.

**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 and documents 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 may currently deem immaterial also may impair our business, financial condition, operating results and/or stock price. If any of the following risks or such other risks actually occurs, our business, financial condition, operating results and/or stock price 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 development, marketing, sale and distribution of anti-counterfeiting and product authentication solutions as well as the large scale production of specific DNA sequences using the polymerase chain reaction. 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 net losses which may continue, and which may harm our ability to obtain financing and continue our operations.*

We incurred net losses of \$11.9 million and \$13.1 million for the fiscal years ended September 30, 2015, and 2014, respectively. These net 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 market acceptance. If we continue to incur losses, then our accumulated deficit will continue to increase which may 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.

***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 may 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 any necessary additional financing, we will most likely be forced to reduce or terminate our operations.

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

The Company's revenues earned from the sale of products and services for the fiscal year ended September 30, 2015 included an aggregate of 79% of the Company's total revenues from two customers. These two customers accounted for approximately 90% of our total accounts receivable at September 30, 2015. No one customer represented greater than 10% of our total revenues for the fiscal years ended September 30, 2014 and 2013. 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 our existing products and services are not accepted by potential customers or if 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 lack of widespread market acceptance of our solutions may harm our business, operating results and financial condition.***

Rapid technological changes and frequent new product introductions are typical in 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.

***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 we are unable to continue to 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 Chief Scientific Officer. We entered into an employment agreement with Dr. Hayward dated July 11, 2011, which had an initial term of three years, with automatic renewal for one-year terms (subject to 90 days' prior notice of non-renewal by Dr. Hayward or us). We do not have an employment agreement with Dr. Liang. Loss of the services of either of Drs. Hayward or Liang could significantly harm our business, results of operations and financial condition. We do not maintain key-person insurance on the lives of Drs. Hayward or Liang. See also the information set forth under the caption "Employment Agreement with Dr. James A. Hayward" in Item 11, "Employee Compensation."

*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., Alp Vision, Applied Optical Technologies, Authentix, ChromoLogic LLC, Collectors Universe Inc., Brandwatch, Collotype, Data Dot Technology, De La Rue Plc, Digimarc Corp., DuPont Authentication Systems, DNA Technologies, Inc., ID Global, Informium AG, Inksure Technologies, Kodak, L-1 Identity Solutions, Media Sec Technologies, MicroTag Temed Ltd., Nanotech Security Corp., Nokomis, Inc., opSec Security Group plc, SelectaDNA, SmartWater Technology, Inc., Sun Chemical Corp, Tracetag, ProofTag SAS, TruTag 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.

***If a manufacturer or supplier 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 and suppliers 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 and suppliers, we do not control these manufacturers or suppliers or their labor practices. The violation of labor or other laws by our independent manufacturers or suppliers, or by one of our licensing partners, or the divergence of an independent manufacturer's, supplier'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 efforts 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 of, 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 the fiscal year ended September 30, 2015, we completed the purchase of substantially all the assets and technology of Vandalia relating to large-scale production of specific DNA sequences using the polymerase chain reaction, while in the fiscal year ended September 30, 2013, we completed the purchase of certain assets and technology from RedWeb 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 operating results to vary significantly from quarter to quarter. 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 2015 and 2014, 14% and 33%, 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 our industry is very competitive, we face significant challenges in attracting and retaining a qualified personnel base. Although we believe we have been, and will continue to be, able to attract and retain these personnel, we cannot assure you that we will continue to be able to successfully attract qualified personnel in the future. 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 would 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, with the exception of our Chief Executive Officer. See “—If we are unable to continue to retain the services of Dr. Hayward or Dr. Liang, we may not be able to continue our operations.” in this Item 1A and the information set forth under the caption “Employment Agreement with Dr. James A. Hayward” in Item 11, “Employee Compensation.”

***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, financial condition and results of operations.***

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 you 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, 2015, this could result in a significant decrease in our liquidity or assets, which could result in the reduction or termination of our business.

***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.

***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 periods 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 trends appear to have improved somewhat since the extreme economic contraction in the fiscal years ended September 30, 2008 and 2009, there is still significant uncertainty in the global economy, and there is no guarantee that trends reflecting improvement in the global economy will continue.

While credit and financial markets seem to have stabilized from the period of pervasive distress in the fiscal years ended September 30, 2008 and 2009, our liquidity may be affected by future downturns or changes in the financial markets and the global economy. These trends could, among other things, make it more difficult for us to obtain, or increase our cost of obtaining, capital and financing for our operations. 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.

*A cybersecurity incident and other technology disruptions could negatively affect our business and our relationships with customers.*

We use technology in substantially all aspects of our business operations. The widespread use of technology, including mobile devices, cloud computing, and the internet, give rise to cybersecurity risks, including security breach, espionage, system disruption, theft and inadvertent release of information. Our business involves the storage and transmission of numerous classes of sensitive and/or confidential information and intellectual property, including information relating to customers and suppliers, private information about employees, and financial and strategic information about us and our business partners. If we fail to effectively assess and identify cybersecurity risks associated with the use of technology in our business operations, we may become increasingly vulnerable to such risks. Additionally, while we have implemented measures to prevent security breaches and cyber incidents, our preventative measures and incident response efforts may not be entirely effective. The theft, destruction, loss, misappropriation, or release of sensitive and/or confidential information or intellectual property, or interference with our information technology systems or the technology systems of third parties on which we rely, could result in business disruption, negative publicity, brand damage, violation of privacy laws, loss of customers, potential liability and competitive disadvantage.

#### **Risks Relating to Our Common Stock and Other Securities:**

*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 8, 2015, we had 24,064,092 shares of common stock issued and outstanding, outstanding options to purchase 3,397,392 shares of common stock and outstanding warrants to purchase 7,324,727 shares of common stock. The issuance of shares upon exercise of our outstanding options and warrants will cause immediate and substantial dilution to our stockholders. In addition, under our publicly traded warrants, in the event of a “Fundamental Transaction” (as defined in the related warrant agreement, which generally includes any merger with another entity, the sale, transfer or other disposition of all or substantially all of our assets to another entity, or the acquisition by a person of more than 50% of our common stock), each warrant holder will have the right at any time prior to the consummation of the Fundamental Transaction to require us to repurchase the warrant for a purchase price in cash equal to the Black Scholes value (as calculated under the warrant agreement) of the then remaining unexercised portion of such warrant on the date of such Fundamental Transaction, which may materially adversely affect our financial condition and/or results of operations.

*We may require additional financing which may in turn require the issuance of additional shares of common stock, preferred stock or other debt or equity securities (including convertible securities) and which would dilute*

***the ownership held by our stockholders.***

We may need to raise funds through either debt or the sale of our shares of our common stock in order to achieve our business goals. Any additional 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 offerings completed in November 2014 and April 2015, as well as our registered direct public offering (the “Registered Direct Offering”) and concurrent private placement (the “Private Placement”), during November 2015 resulted in dilution to investors and future offerings of securities could result in further dilution to investors.

***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 the shares of our common stock held by stockholders.***

If we raise capital in the future by issuing additional securities, our stockholders may experience a decline in the value of the shares of our common stock they currently hold or may acquire prior to any such financing. In addition, such securities may have rights senior to the rights of holders of our shares of common stock.

Moreover, in connection with our entry into the securities purchase agreement with certain institutional investors as part of the Registered Direct Offering and the Private Placement, we have agreed not to enter into any agreement to issue or announce the issuance or proposed issuance of any common stock or common stock equivalents for a period of 90 days following the closing of the offerings.

***Our inability to timely file audited historical financial statements of Vandalia with the SEC may adversely affect our ability to raise, and the cost of raising, future capital.***

As a result of our acquisition of substantially all of the assets of Vandalia in September 2015, we are required to file with the SEC certain audited historical financial statements relating to Vandalia. These financial statements were not available to be filed by the date on which they were required to be filed, November 27, 2015. Therefore, we are currently ineligible to use Form S-3, a streamlined registration form, to register securities for at least twelve calendar months. During this period of ineligibility, if we determine it to be necessary or advisable to raise additional capital, we would need to use Form S-1 to register securities with the SEC (if and when we become eligible to use Form S-1, as discussed in further detail below) or we would instead need to issue such securities in private placements. These alternatives generally entail greater total costs to us and more time to complete than the use of Form S-3 and any take-down offering associated with an effective registration statement on Form S-3. As a result, our ability to raise, and the cost of raising, future capital could be adversely affected. Moreover, until we have filed the required audited financial statements of Vandalia, we would be unable to use Form S-1 to register securities and would be unable make conduct offerings in private placements under Rule 505 or 506 of Regulation D to any purchasers who are not accredited investors.



In addition, because we are now currently unable to make offers or sales pursuant to our existing effective registration statements on Forms S-1 and S-3, if a holder of a warrant issued pursuant to either of those registration statements delivers to us an exercise notice and subsequently purchases (in an open market transaction or otherwise) shares of our common stock in an amount up to the number of shares of our common stock issuable in connection with the holder's exercise of warrants, we could be required to pay cash to the holder in an amount equal to 100% of the holder's total purchase price (including brokerage commissions and other out-of-pocket expenses, if any) for the shares of common stock so purchased.

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

Our common stock and publicly traded warrants are listed on The NASDAQ Capital Market under the symbols "APDN" and "APDNW," respectively. For our common stock and publicly traded warrants to continue to be listed on The NASDAQ Capital Market, we must meet the current continued listing requirements. If we were unable to meet these requirements, including, but not limited to, requirements to obtain stockholder 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 one of the markets operated by OTC Markets Group, including OTC Pink (formerly known as the "pink sheets"), 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 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 stockholder litigation, which could have an adverse effect on our results of operations and the market 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 SEC 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 an amendment on Form 10-K/A 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 SEC 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.

***Short sellers of our stock may be manipulative and may drive down the market price of our common stock.***

Short selling is the practice of selling securities that the seller does not own but rather has borrowed or intends to borrow from a third party with the intention of buying identical securities at a later date to return to the lender. A short seller hopes to profit from a decline in the value of the securities between the sale of the borrowed securities and the purchase of the replacement shares, as the short seller expects to pay less in that purchase than it received in the sale. As it is therefore in the short seller's interest for the price of the stock to decline, some short sellers publish, or arrange for the publication of, opinions or characterizations regarding the relevant issuer, its business prospects and similar matters calculated to or which may create negative market momentum, which may permit them to obtain profits for themselves as a result of selling the stock short. Issuers whose securities have historically had limited trading volumes and/or have been susceptible to relatively high volatility levels can be particularly vulnerable to such short seller attacks. The publication of any such commentary regarding us in the future may bring about a temporary, or possibly long term, decline in the market price of our common stock. In the past, the publication of commentary regarding us by a disclosed short seller has been associated with the selling of shares of our common stock in the market on a large

scale, resulting in a precipitous decline in the market price per share of our common stock. No assurances can be made that similar declines in the market price of our common stock will not occur in the future, in connection with such commentary by short sellers or otherwise. We have identified two persons of interest believed to be involved in publication of such commentary regarding us that occurred in connection with disclosed short-selling in October 2015. The identities of the suspects have been reported to certain federal and state authorities and may be further reported to additional authorities.

*The price of our common stock may be volatile or may decline, and the trading volume of our common stock may fluctuate, which may make it more difficult to realize a profit on your investment in our shares of common stock.*

Our common stock is listed on The NASDAQ Capital Market. The trading price of our common stock has been and may continue to be volatile. In addition, the trading volume of our common stock may fluctuate and cause significant price variations to occur. Volatility in the market price of our common stock may prevent you from being able to sell your shares of common stock at or above the price you paid for your shares of common stock, which may make it more difficult to realize a profit on your investment. A number of factors may affect the market price of our common stock, including, but not limited to, the following:

- our operating and financial performance and prospects;
- our quarterly or annual earnings or those of other companies in our industry or that investors deem comparable to us;
- conditions that impact demand for our products and services;
- public reactions to our press releases, other public announcements and filings with the SEC;
- market and industry perception of our success, or lack thereof, in pursuing our growth strategy;
- strategic actions by us or our competitors, such as acquisitions or restructurings;
- changes in accounting standards, policies, guidance, interpretations or principles;
- arrival and departure of key personnel, including management personnel;
  - changes in our capital structure;
- changes in the price of our warrants or other securities we may issue from time to time;
- sales of common stock by us, our directors, officers or large stockholders;

the expiration of contractual lock-up agreements; (such those to which the Company and its directors, officers and certain stockholders are subject in connection with our Registered Direct Offering and Private Placement, which expire in February 2016 and May 2016, respectively);

changes in general market, economic and political conditions in the United States and global economies or financial markets, including those resulting from natural disasters, terrorist attacks, acts of war and responses to such events;

announcements of new products or innovations by us or our competitors and announcements concerning our competitors or our industry in general;

difficulties in commercialization and distribution of our products or lower than expected sales volume or revenues;

changes in our relationships with manufacturers, suppliers or collaborators, or our inability to supply enough product to meet demand;

- our ability to obtain additional funding;

- changes or developments in applicable laws or regulations;

any intellectual property infringement actions or other litigation or legal proceeding in which we may become involved;

changes in financial estimates or recommendations by securities analysts, or their ceasing to publish research or reports about our business;

- the trading volume of our common stock; and

the appeal and current level of investor interest in the biotechnology/biopharmaceutical capital market sector and in companies in general with business, research strategies and product development pipelines which are similar to us.

In addition, The NASDAQ Capital Market and other securities markets have, from time to time, experienced extreme price and trading volume fluctuations. The market prices of securities of biotechnology and other life sciences companies in a comparable stage to ours historically have been particularly volatile, and trading volume in such securities and our common stock has often been relatively low. Moreover, the securities and financial markets in general have experienced substantial volatility that has often been unrelated or disproportionate to the operating results of any individual company. During certain periods, specific industry sectors, such as the biotechnology segment, may experience greater volatility than other sectors or the securities markets as a whole. These broad market fluctuations, during which our industry and companies at our stage may experience a stronger degree of market sensitivity, will adversely affect the market price of our common stock.

In the past, following periods of volatility in the market price of a company's securities, stockholders have often instituted class action securities litigation against those companies. Such litigation, if instituted, could result in substantial costs and diversion of management attention and resources, which could significantly harm our reputation and materially adversely affect our business, financial condition and results of operations.

**ITEM 1B. UNRESOLVED STAFF COMMENTS.**

None.

**ITEM 2. PROPERTIES.**

Our corporate headquarters is 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. In addition to the office space, we also have 1,500 square feet of laboratory space. The term of the lease commenced on November 1, 2015 and expires on October 31, 2016. We also have an operating lease for a laboratory in Calverton, New York. The Calverton lease is currently on a month to month basis. Our operating lease for a laboratory in Huddersfield, United Kingdom was terminated effective as of July 31, 2015. As discussed in Note C to the accompanying consolidated financial statements, pursuant to the Asset Purchase Agreement, we entered into a month to month sublease with Vandalia of approximately 5,000 square feet at Vandalia's office facility in West Virginia.

**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.

**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 and warrants on The NASDAQ Capital Market or the OTCQB, as applicable during the fiscal years ended September 30, 2015 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:

|                      | <b>Fiscal 2015</b> |            | <b>Fiscal 2014</b> |            |
|----------------------|--------------------|------------|--------------------|------------|
| <b>Common Stock:</b> | <b>High</b>        | <b>Low</b> | <b>High</b>        | <b>Low</b> |
| First Quarter        | \$7.70             | \$2.02     | \$11.40            | \$4.80     |
| Second Quarter       | \$4.44             | \$2.54     | \$10.80            | \$7.20     |
| Third Quarter        | \$3.72             | \$2.27     | \$8.40             | \$6.00     |
| Fourth Quarter       | \$6.60             | \$2.50     | \$7.80             | \$5.40     |

|                  | <b>Fiscal 2015</b> |            | <b>Fiscal 2014</b> |            |
|------------------|--------------------|------------|--------------------|------------|
| <b>Warrants:</b> | <b>High</b>        | <b>Low</b> | <b>High</b>        | <b>Low</b> |
| First Quarter    | \$1.29             | \$0.50     | \$-                | \$-        |
| Second Quarter   | \$1.80             | \$0.80     | \$-                | \$-        |
| Third Quarter    | \$1.81             | \$0.85     | \$-                | \$-        |
| Fourth Quarter   | \$3.80             | \$0.95     | \$-                | \$-        |

## Holders

As of December 8, 2015, we had approximately 636 holders of record of our common stock and 3 holders of record of our publicly traded 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 (the “Incentive 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. On January 21, 2015, the Board of Directors approved an amendment to the Incentive Plan, which was approved by stockholders on June 16, 2015. The amendment increases the number of shares of common stock that can be issued as stock awards and stock options thereunder to an aggregate of 8,333,333. The amendment also extends the Incentive Plan’s expiration date to January 25, 2025.

The Incentive 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 our Common Stock. As of September 30, 2015, a total of 251,752 shares have been issued and options to purchase 4,152,446 shares have been granted under the Incentive Plan.

See also the information under the caption “Equity Compensation Plan Information” in Item 12, “Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.”



## **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 each of July 31, 2015, August 31, 2015 and September 30, 2015 we issued 5,000 shares of our common stock, aggregating 15,000 shares, to a consultant for services provided pursuant to the Incentive Plan. In addition, on September 30, 2015, we issued 3,000 shares of our common stock to a consultant for services provided pursuant to the Incentive Plan.

The foregoing issuances of common stock were exempt from registration under the Securities Act, pursuant to the exemptions from registration provided by Section 4(a)(2) of the Securities Act and/or by Rule 506 of Regulation D promulgated under the Securities Act as transactions not involving a public offering.

On November 23, 2015, the Company entered into a securities purchase agreement with certain institutional investors providing for the purchase and sale of 2,500,000 shares of our common stock at a price of \$3.49 per share in the Registered Direct Offering. In the concurrent Private Placement, the Company sold to each investor that purchased shares in the Registered Direct Offering warrants to purchase common stock, each exercisable for 0.5 shares of common stock (the "Purchase Warrants"), in the amount of one Purchase Warrant for each share of our common stock purchased by such investor in the Registered Direct Offering, aggregating to 1,250,000 shares of our common stock issuable upon exercise of the Purchase Warrants. The Purchase Warrants were sold at a price of \$0.01 per warrant, with an exercise price of \$4.30 per share of common stock issuable upon exercise of such warrants, subject to adjustment pursuant to the terms thereof (including in the event of any stock dividend or split, reverse stock split, recapitalization, reorganization or similar transaction, as set forth in the Purchase Warrants). The Purchase Warrants will be exercisable beginning six months following the closing date of the Registered Direct Offering and the Private Placement and will expire upon the close of business on the date that is five years from the date on which they become exercisable.

After the Initial Exercise Date, if and only if no effective registration statement registering, or no current prospectus available for, the resale of the Purchase Warrants, the Purchasers may exercise the Purchase Warrants by means of a "cashless exercise."

Subject to limited exceptions, a holder of Purchase Warrants will not have the right to exercise any portion of its Purchase Warrants if the holder, together with its affiliates, would beneficially own in excess of 4.99% (or, at the election of the holder, 9.99%) of the number of shares of common stock outstanding immediately after giving effect to such exercise (the “Beneficial Ownership Limitation”); provided, however, that upon 61 days’ prior notice to us, the holder may increase the Beneficial Ownership Limitation, provided that in no event shall the Beneficial Ownership Limitation exceed 9.99%. In addition, pursuant to the Purchase Warrants, if upon an exercise of such warrants, we do not deliver the required number of shares of common stock issuable thereunder and, following the third trading day after delivery of the relevant notice of exercise, the holder is required by its broker to purchase in an open market transaction or otherwise (or its brokerage firm otherwise purchases pursuant to the holder’s instruction) common stock to deliver in satisfaction of a sale by it of shares of our common stock which it anticipated receiving upon such exercise, then we are required to pay the holder an amount in cash equal to the amount by which the holder’s total purchase price for the shares of common stock so purchased exceeds the aggregate price for the shares of common stock that we were required to deliver in connection with such exercise at the price at which the sell order giving rise to such purchase obligation was executed.

In connection with the closing of the Registered Direct Offering and the Private Placement, as partial compensation, on November 25, 2015, we granted warrants to purchase 50,000 shares of our common stock to our placement agent, Maxim Group LLC (the “Placement Agent Warrants”) at an exercise price of \$4.03 (115% of the public offering price), subject to adjustment as set forth therein (including for stock dividends and splits and certain other distributions and “Fundamental Transactions,” as defined therein). The Placement Agent Warrants will be exercisable beginning six months following the closing date of the Registered Direct Offering and the Private Placement and terminate at 5:00 P.M. (Eastern Standard Time) on November 25, 2020. In addition, the Placement Agent Warrants provide for cashless exercise, which the Placement Agent may elect if there is no effective registration statement registering the resale of the shares issuable upon exercise of the Placement Agent Warrants. The number of shares of common stock that may be acquired by the Placement Agent upon any exercise of the Placement Agent Warrants (or otherwise in respect hereof) shall be limited to the extent necessary to insure that, following such exercise, the total number of shares of common stock then beneficially owned by the Placement Agent and its Affiliates (as defined therein) and any other Persons whose beneficial ownership of common stock would be aggregated with the Placement Agent pursuant to the Exchange Act, does not exceed 9.99% of the total number of issued and outstanding shares of common stock.

In addition, pursuant to the Placement Agent Warrants, if upon an exercise of such warrants, we do not deliver the required number of shares of common stock issuable thereunder and, following the third trading day after delivery of the relevant notice of exercise, the Placement Agent purchases (in an open market transaction or otherwise) common stock to deliver in satisfaction of a sale by it of shares of common stock which it anticipated receiving upon such exercise, then we are required to pay the Placement Agent an amount in cash equal to the amount by which the Placement Agent’s total purchase price for the shares of common stock so purchased exceeds the aggregate price for the shares of common stock that we were required to deliver in connection with such exercise at the closing bid price on the date of such exercise.

The foregoing issuances of warrants were exempt from registration under the Securities Act, pursuant to the exemptions from registration provided by Section 4(a)(2) of the Securities Act and by Rule 506 of Regulation D promulgated under the Securities Act as transactions not involving a public offering. Each purchaser of Purchase Warrants in the Private Placement represented that it was an “accredited investor” as defined under Regulation D or a “qualified institutional buyer” as defined in Rule 144A under the Securities Act.

The foregoing descriptions of the Purchase Warrants and the Placement Agent Warrants are qualified in their entirety by reference to the full text of the Form of Purchase Warrant and the Form of Placement Agent Warrant, which are incorporated in this Annual Report on Form 10-K as Exhibits 4.5 and 4.6, respectively, and incorporated herein by reference in their entirety.

#### **ITEM 6. Selected Financial Data.**

Information requested by this Item is not applicable as we are electing scaled disclosure requirements available to Smaller Reporting Companies with respect to this Item.

#### **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. This Annual Report on Form 10-K (including but not limited to this Item 7, “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 and Section 21E of the Exchange Act and are subject to the “safe harbor” created by those sections. In addition, we may make forward-looking statements in other documents filed with or furnished to the SEC, and our management and representatives may make forward-looking statements orally or in writing to analysts, investors, representatives of the media and others. Forward-looking statements can generally be identified by the fact that they do not relate strictly to historical or current facts and include, but are not limited to, statements using terminology such as “can”, “may”, “could”, “should”, “assume”, “forecasts”, “believe”, “designated to”, “will”, “expect”, “plan”, “anticipate”, “estimate”, “potential”, “position”, “predicts”, “strategy”, “goal”, “budget”, “seek”, “project” 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 are based on our current expectations, assumptions, estimates and projections about our business and our industry and are subject to known and unknown risks, uncertainties and other factors. Accordingly, our actual results and the timing of certain events may differ materially from those expressed or implied in such forward-looking statements due to a variety of factors and risks, including, but not limited to, those set forth under Item 1, “Business,” Item 1A, “Risk Factors,” this Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and our consolidated financial statements and notes thereto included in this report, those set forth from time to time in our other filings with the SEC, and the following factors and risks:

- our short operating history, relatively new business model and lack of significant previous revenues;
- our history of net losses, which may continue, and our potential inability to achieve profitability;

the possibility that we may require additional financing, which may involve the issuance of additional shares of common stock or securities exercisable for common stock and dilute the percentage of ownership held by our current stockholders;

difficulty in obtaining, or inability to obtain, additional financing if such financing becomes necessary, including due to constraints on our ability to raise and/or increased cost of raising capital, as a result of our inability to timely file the audited historical financial statements of Vandalia Research, Inc.;

- volatility in the price and/or trading volume of our common stock;
- future short selling and/or manipulation of the price of our common stock;
- our inability to implement our short and long-term strategies;
- loss of strategic relationships;
- dependence on a limited number of key customers;
- lack of acceptance of our products and services by potential customers;

- potential failure to introduce new products and services;

- difficulty or failure in expanding our sales, marketing and support organizations and our distribution arrangements necessary to enable us to reach our goals with respect to increasing market acceptance of our products and services;

- inability to continue to retain the services of Dr. Hayward, our Chief Executive Officer, or Dr. Liang, our Chief Scientific Officer;

- inability to compete effectively in the industries in which we operate;

- lack of success in our research and development efforts for new products;

- failure to manage our growth in operations and acquisitions of new technologies and businesses;

- inability to protect our intellectual property rights;

- intellectual property litigation against us or other legal actions or proceedings in which we may become involved;

- unauthorized disclosure of sensitive or confidential data (including customer data) and cybersecurity breaches; and

- adverse changes in worldwide or domestic economic, political or business conditions.

All forward-looking statements and risk factors included in this Annual Report on Form 10-K 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. If we do update one or more forward-looking statements, no inference should be drawn that we will make updates with respect to other forward-looking statements or that we will make any further updates to those forward-looking statements at any future time. Forward-looking statements may include our plans and objectives for future operations, including plans and objectives relating to our products and our future economic performance, projections, business strategy and timing and likelihood of success. Assumptions relating to the foregoing involve judgments with respect to, among other things, future economic, competitive and market conditions, future business decisions, and the time and money required to successfully complete development and commercialization of our technologies, all of which are difficult or impossible to predict accurately and many of which are beyond our control.

Any of the assumptions underlying the forward-looking statements contained in this Annual Report on Form 10-K could prove inaccurate and, therefore, we cannot assure you that the results contemplated in any of such forward-looking statements will be realized. Based on the significant uncertainties inherent in these forward-looking statements, the inclusion of any such statement should not be regarded as a representation or as a guarantee by us that our objectives or plans will be achieved, and we caution you against relying on any of the forward-looking statements contained herein.

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 provide botanical-DNA based security and authentication solutions and services that can help protect products, brands, entire supply chains, and intellectual property of companies, governments and consumers from theft, counterfeiting, fraud, and diversion. 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.

## **General**

To date, the substantial portion of our revenues has been generated from sales of Signature DNA, our principal anti-counterfeiting solution. We expect to continue to grow revenues from sales of our SigNature DNA platform ingredient, and our fiberTyping, DNAnet, and digitalDNA offerings. We have continued to incur expenses in expanding our business 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; and

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 has not been provided, or is subject to refund until such time that we and the customer jointly determine that the product has been delivered, the service has been provided, or no refund will be required. At September 30, 2015 and 2014, we recorded deferred revenue of \$282,050 and \$583,362, 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 are achieved as per the contract. We recognized revenue of approximately \$2,792,555 and \$156,452, from these contract awards during the fiscal years ended September 30, 2015 and 2014, respectively.

We have a mutual license agreement with Divatex, a leading supplier of home textiles, to commercialize the world’s first supply-chain-DNA-verified cotton product. Divatex is responsible for marketing, while we license our patented SigNature T DNA technology for application. We invoice and receive the tagging fee from merchants and subsequently pay to Divatex its share of the tagging fee on a quarterly basis, based on when payments are received by us. Both us and Divatex are entitled to be reimbursed for its respective agreed costs and the balance of the tagging fees received are divided in accordance with the mutual license agreement. See also the information under the caption "-Distribution of our Products and Commercial Agreements-Divatex."



In addition, in June 2015, we signed a memorandum of understanding (“MOU”) with Louis Dreyfus Commodities to provide secure logistic supply chain support for the tagging and authentication of cotton fibers with SigNature T DNA. During the fiscal year ended September 30, 2015, we shipped SigNature T DNA to tag 100 million pounds of cotton.

We recognize the revenue under our cotton customer contracts when the product has been shipped, as there is no right of return under these arrangements. We have evaluated the other indicators of gross and net revenue recognition, including whether or not we are the primary obligor and if we have general inventory risk. We do not have any general inventory risk and are not the primary obligor as it relates to the marketing portion of the tagging fee. We have carefully evaluated all of the key gross and net revenue recognition indicators and have concluded that its circumstances at it relates to Divatex’s portion of the tagging fee is more consistent with those key indicators that support net revenue reporting.

The nature of the MOU described above includes extended payment terms that will result in a longer collection period and slower cash inflows. As a result, approximately \$1,500,000 is included in long-term accounts receivable as of September 30, 2015 for the revenue recognized during the fiscal year ended September 30, 2015.

### ***Equity Based Compensation***

We account for stock-based compensation for employees and directors in accordance with ASC 718, Compensation (“ASC 718”). ASC 718 requires all share-based payments to employees, including grants of employee stock options, to be recognized in the statement of operations based on their fair values. Under the provisions of ASC 718, stock-based compensation costs are measured at the grant date, based on the fair value of the award, and are recognized as expense over the employee’s requisite service period (generally the vesting period of the equity grant). The fair value of our common stock options are estimated using the Black Scholes option-pricing model with the following assumptions: expected volatility, dividend rate, risk free interest rate and the expected life. We expense stock-based compensation by using the straight-line method. In accordance with ASC 718, excess tax benefits realized from the exercise of stock-based awards are classified in cash flows from financing activities. The future realization of the reserved deferred tax assets related to these tax benefits associated with the exercise of stock options will result in a credit to additional paid in capital if the related tax deduction reduces taxes payable. We have elected the “with and without approach” regarding ordering of windfall tax benefits to determine whether the windfall tax benefit did reduce taxes payable in the current year. Under this approach, the windfall tax benefit would be recognized in additional paid-in-capital only if an incremental tax benefit is realized after considering all other benefits presently available.

The fair value for options granted was calculated using the following weighted average assumptions:

|                | 2015   | 2014   |
|----------------|--------|--------|
| Stock price    | \$2.85 | \$6.11 |
| Exercise price | \$2.85 | \$6.12 |
| Expected term  | 5.12   | 3.62   |
| Dividend yield | -      | -      |
| Volatility     | 133 %  | 112 %  |
| Risk free rate | 1.7 %  | 0.97 % |

We account for stock based compensation awards issued to non-employees for services, as prescribed by ASC 718-10, at either the fair value of the services rendered or the instruments issued in exchange for such services, whichever is more readily determinable, using the measurement date guidelines enumerated in ASC 505-50.

### *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.

#### *Level 3 Measurements:*

**Warrant Liability:** Estimated using the Binomial Lattice option valuation model. Significant observable and unobservable inputs include stock price, exercise price, annual risk free rate, term, and expected volatility. An increase or decrease in these inputs could significantly increase or decrease the fair value of the warrant. See Notes G and J to

the accompanying consolidated financial statements.

For fair value measurements categorized within Level 3 of the fair value hierarchy, our accounting and finance department, who report 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*

The preparation of the financial statements in conformity with Accounting Principles Generally Accepted in the United States (“GAAP”) requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Management bases its estimates on historical experience and on various assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. The most complex and subjective estimates include recoverability of long-lived assets, including the values assigned to goodwill, intangible assets and property, plant and equipment, fair value calculations for warrants and stock based compensation, contingencies and allowance for doubtful accounts. Management reviews its estimates on a regular basis and the effects of any material revisions are reflected in the consolidated financial statements in the period they are deemed necessary. Accordingly, actual results could differ from those estimates.

### **Comparison of the Fiscal Year Ended September 30, 2015 to the Fiscal Year Ended September 30, 2014**

#### **Revenues**

For the fiscal years ended September 30, 2015 and 2014, the Company generated \$9,008,499 and \$2,721,224 in revenues from operations, respectively. The increase in revenues of \$6,287,275 or 231% for the fiscal year ended September 30, 2015 is attributable to an increase in revenue of approximately \$3,600,000 in the textile industry for protecting cotton supply chains, and two government contract awards of approximately \$2,800,000. Furthermore, increases were partially offset by a decrease in revenue from suppliers of the DLA due to the consolidation of our individual contracts to one contract directly with the DLA.

#### **Costs and Expenses**

##### *Selling, General and Administrative*

Selling, general and administrative expenses for the fiscal year ended September 30, 2015 increased by \$1,486,698 or 11.2% to \$14,736,451 from \$13,249,753 in the same period in 2014. The increase is primarily attributable to an increase in stock based compensation expense of \$2,031,331, attributable to grants to employees that vested immediately, as well as stock based compensation expense associated with stock option modifications resulting from the extension of certain stock options, and to a lesser extent, the acceleration of vesting terms. The increase is also due

to an increase in salary expense of approximately \$690,000. This increase was primarily offset by decreases in legal and consulting expenses. Legal expenses decreased by \$691,000 due to the court's dismissal of the SmartWater Limited litigation against us. Consulting fees decreased by \$375,000 primarily due to shares of common stock issued to a business strategy consultant in settlement of their fees during the fiscal year ended September 30, 2014.

### ***Research and Development***

Research and development expenses increased by \$334,631 or 25.7% for the fiscal year ended September 30, 2015 compared to the same period in 2014 to \$1,635,381 from \$1,300,750. The increase is attributable to development costs incurred in relation to the two government contracts, offset by a decrease due to us starting to capitalize the costs for the development of infield readers during the fiscal year ended September 30, 2015, which were being expensed during the prior fiscal year.

### ***Depreciation and Amortization***

Depreciation and amortization increased by \$48,379 or 9.9% compared to the same period in 2014 from \$442,262 for the fiscal year ended September 30, 2014 to \$490,641 for the fiscal year ended September 30, 2015. The increase is attributable to depreciation and amortization expense for the lab equipment purchased during the fiscal year ended September 30, 2015.

### ***Interest (Expenses) Income***

Interest expense for the fiscal year ended September 30, 2015, increased to \$23,468 from \$11,029 in the same period of 2014. The increase in interest expense was due to the interest expense of \$11,875 for the promissory notes entered into on September 11, 2014 as discussed in note F 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 fiscal year ended September 30, 2015 and 2014 was \$2,994,540 and \$908,005, 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. As discussed in Note G of the accompanying consolidated financial statements, on November 21, 2014, we repurchased the remaining outstanding Series B Warrants.



## Liquidity and Capital Resources

Our liquidity needs consist of our working capital requirements and research and development expenditure funding. As of September 30, 2015, we had working capital of \$8,867,996. For the fiscal year ended September 30, 2015, we generated a net cash flow deficit from operating activities of \$6,965,846 consisting primarily of our loss of \$11,881,137, net with non-cash adjustments of \$490,641 in depreciation and amortization charges, \$4,022,283 for stock-based compensation, \$2,994,540 change in fair value of warrant liability, \$980,842 loss on conversion of promissory notes, \$136,281 in common stock issued for consulting services and \$34,996 of bad debt expense. Additionally, we had a net increase in operating assets of \$4,684,032 and a net increase in operating liabilities of \$939,740. Cash used in investing activities was \$2,138,568, consisting of \$1,500,000 for the purchase of substantially all of the assets of Vandalia, \$286,953 for the purchase of intangibles assets and \$351,615 for the purchase of property, plant and equipment. Cash provided by financing activities was \$15,023,466, which included \$19,114,418 in net proceeds from the sale of common stock and warrants related to our two public offerings. These were offset by \$4,090,952 used to repurchase warrants.

At September 30, 2015, there was approximately \$1,500,000 included in the long-term accounts receivable relating to a customer from the cotton industry that purchased SigNature T DNA to mark the cotton supply chain. The nature of this contract includes extended payment terms that will result in a longer collection period and slower cash inflows, which will affect our liquidity and capital resources.

We have recurring net losses, which have resulted in an accumulated deficit of \$211,641,409 as of September 30, 2015. We have incurred a net loss of \$11,881,137 and generated negative operating cash flow of \$6,965,846 for the fiscal year ended September 30, 2015. At September 30, 2015 we had cash and cash equivalents of \$7,312,184 and working capital of \$8,867,996. Our current capital resources include cash and cash equivalents, accounts receivable and prepaid expenses and other current assets. Historically, we have financed our operations principally from the sale of equity securities. As discussed in Note I to the accompanying consolidated financial statement, during the fiscal year ended September 30, 2015, we closed on two underwritten public offering of common stock and warrants for aggregate gross proceeds of approximately \$21,569,600, before deducting underwriting discounts and offering expenses. We utilized approximately \$4,091,000 of the gross proceeds to repurchase the remaining Series B Warrants from Crede, as discussed in Note G of the accompanying consolidated financial statements. In addition, on November 23, 2015, we closed a Registered Direct Public Offering of common stock and the Private Placement of warrants to purchase common stock, for aggregate gross proceeds of approximately \$8,750,000, before deducting placement agent discounts and offering expenses (excluding proceeds from any future exercises of such warrants) (see Note I 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 may 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 revenues are not sufficient to cover our operating expenses, and if we are not successful in obtaining the necessary additional financing, we will most likely be forced to reduce operations.

We expect capital expenditures to be less than \$2,000,000 in fiscal 2016. 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.

## **Recent Debt and Equity Financing Transactions**

### ***Fiscal 2015***

On November 20, 2014, we closed our underwritten public offering of 2,800,000 shares of common stock and warrants to purchase up to an aggregate of 2,800,000 shares of common stock for gross proceeds of \$9.1 million before deducting underwriting discounts and offering expenses. The Company utilized \$4,091,000 of the gross proceeds to repurchase the remaining Series B Warrants from Crede, as discussed in Note G to the accompanying consolidated financial statements. The combined price for each share of common stock and warrant was \$3.25. The warrants may be exercised for a period of five years and have an exercise price of \$3.50 per share. In connection with the offering, the Company granted to the underwriters a 45-day option to purchase up to 420,000 additional shares of common stock at \$3.24 per share and/or up to 420,000 additional warrants at \$0.01 per share to cover over-allotments, if any. Our Chief Executive Officer and an affiliated company of a member of the our board of directors participated in this underwritten public offering. On December 19, 2014, the Company closed on the underwriters' exercise of its over-allotment option of 416,850 warrants for gross proceeds of \$4,169 and on December 30, 2014, the Company closed on the underwriters' additional exercise of its over-allotment option of 52,000 shares of common stock for gross proceeds of \$168,400. The total number of common stock and warrants issued under this offering, including the exercise of the over-allotment option was 2,852,000 and 3,216,850, respectively. The gross proceeds to us were \$9.3 million and net proceeds after deducting underwriting discounts, offering expenses and the repurchase of the remaining Series B Warrants from Crede was approximately \$3.69 million.

In connection with the closing of this underwritten public offering, on November 20, 2014, the Company granted 128,800 warrants to purchase common stock to its underwriters as partial compensation. These warrants have an exercise price of \$3.73 (115% of the public offering price) and expire on November 14, 2019.



During the fiscal year ended September 30, 2015, the Company granted an aggregate of 40,500 shares of common stock to consultants for services rendered, for a total expense of \$136,281, granted pursuant to the Incentive Plan.

On April 1, 2015, we closed our underwritten public offering of 4,011,000 shares of common stock and warrants to purchase up to an aggregate of 1,604,400 shares of common stock, at \$3.00 (\$2.99 for one share of common stock and \$0.01 for one warrant) (“combined offering price”), including 191,000 shares and 76,400 warrants sold pursuant to the partial exercise of the underwriters’ over-allotment option. The warrants have a per share exercise price of \$3.50, are exercisable immediately, and expire on November 20, 2019. The gross proceeds to the us from this offering, including the partial exercise of the over-allotment option but before deducting the underwriting discount and offering expenses, is \$12.0 million . In connection with the offering, we granted to the underwriters a 45-day option to purchase up to 573,000 additional shares of common stock and up to 229,200 additional warrants to cover over-allotments, if any. On April 30, 2015, we closed on the underwriters’ exercise of its over-allotment option of 87,000 shares of common stock and 152,800 warrants for gross proceeds of \$263,950.

In connection with the closing of this underwritten public offering, as partial compensation, on April 1, 2015, the Company granted up to 163,720 warrants to purchase common stock to its underwriters. These warrants have an exercise price of \$3.44 (115% of the public offering price) and expire on March 27, 2020.

#### ***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 under the Securities Act.

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.

### ***Subsequent Events***

On November 23, 2015, we entered into a securities purchase agreement with certain institutional investors providing for the purchase and sale of 2,500,000 shares of our common stock at a price of \$3.49 per share in the Registered Direct Offering. In the concurrent Private Placement, the Company sold to each investor that purchased shares in the Registered Direct Offering warrants to purchase our common stock, each exercisable for 0.5 shares of common stock, in the amount of one warrant for each share of common stock purchased by such investor in the Registered Direct Offering, aggregating to 1,250,000 shares of our common stock issuable upon exercise of such warrants. Such warrants were sold at a price of \$0.01 per warrant, with an exercise price of \$4.30 per share of common stock issuable upon exercise of such warrants, subject to adjustment as provided therein. The warrants will be exercisable beginning six months following the closing date of the Registered Direct Offering and the Private Placement and will expire upon the close of business on the date that is five years from the date on which they become exercisable. The aggregate gross proceeds to us from the Registered Direct Offering and concurrent private placement before deducting the placement agent fees and offering expenses, were \$8.75 million (excluding proceeds from any future exercises of such warrants).

In connection with our entry into the securities purchase agreement with certain institutional investors as part of the Registered Direct Offering and the Private Placement, we have agreed not to enter into any agreement to issue or announce the issuance or proposed issuance of any common stock or common stock equivalents for a period of 90 days following the closing of the offerings.

In connection with the closing of the Registered Direct Offering and the Private Placement, as partial compensation, on November 25, 2015, we granted warrants to purchase 50,000 shares of common stock to our placement agent. These warrants have an exercise price of \$4.03 (115% of the public offering price), subject to adjustment as set forth therein, will be exercisable beginning six months following the closing date of the Private Placement and expire at 5:00 PM (Eastern Standard Time) on November 25, 2020.

### **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 DLA. We also have pilot studies underway for industrial materials and textile companies.

### **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 during the fiscal years ended September 30, 2015 and 2014.

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

Information requested by this Item is not applicable as we are electing scaled disclosure requirements available to Smaller Reporting Companies with respect to this Item.

**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.**

See pages F-1 through F-29 following the Exhibit Index.

**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**

**Evaluation of Disclosure Controls and Procedures**

Under the supervision and with the participation of our management, including, our Chief Executive Officer, along with the Chief Financial Officer, on September 30, 2015, we conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) under the Exchange Act, as of September 30, 2015. Disclosure controls and procedures are those controls and procedures designed to provide reasonable assurance that the information required to be disclosed in our Exchange Act filings is (1) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and (2) accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of September 30, 2015, our disclosure controls and procedures were effective.

### **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 our 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 our principal executive and principal financial officers and effected by our board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external 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, 2015. 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, 2015.

### **Changes in Internal Control over Financial Reporting**

There were no changes, 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.

### **ITEM 9B. OTHER INFORMATION.**

Not applicable.



**PART III****ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.**

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

| Name                    | Age | Title   | Board of Directors |
|-------------------------|-----|---|--------------------|
| James A. Hayward        | 62  | Chief Executive Officer, President, and Chairman of the Board | Director           |
| John Bitzer, III        | 54  |   | Director           |
| Charles S. Ryan         | 51  |   | Director           |
| Yacov A. Shamash        | 65  |   | Director           |
| Sanford R. Simon        | 73  |   | Director           |
| Joseph D. Ceccoli       | 53  |   | Director           |
| Beth M. Jantzen         | 39  | Chief Financial Officer                                       |                    |
| Judith Murrah           | 57  | Chief Information Officer                                     |                    |
| Ming-Hwa Benjamin Liang | 52  | Secretary and Chief Scientific 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. Dr. Hayward also serves on the Board of Directors for the Regents Council, Softheon Corporation and Ward Melville Heritage Organization.

Our Board believes that Dr. Hayward's current role as our Chief Executive Officer and President, the capital investments he has made to our Company throughout his tenure with us and his former senior executive positions in our industry make him an important contributor to our Board.

***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. ("ABARTA"), a private, third and fourth-generation family holding-company with operations in the soft drink, energy, and frozen food industries. 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 a Masters of Business Administration ("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 10, 2011. Since March 2015, Dr. Ryan has been Vice President and General Counsel for Cold Spring Harbor Laboratory, a preeminent international research institution. Prior to that, Dr. Ryan was the Senior Vice President, and Chief Intellectual Property Counsel at Forest Laboratories, where he was employed from 2003 to 2014. 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 SUNY Stony Brook and a law degree from Western New England College School of Law.

Our Board believes that Mr. Ryan's expertise as chief intellectual property counsel at a global company makes 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. From 1995 to 2015, he was the Dean of Engineering and Applied Sciences, and from 1995 to 2004 Dr. Shamash was also the Dean at the Harriman School for Management and Policy at the University. He was 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 (over-the-counter / 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 ("B.S.") 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 — Beth Jantzen***

Beth Jantzen was appointed as our Chief Financial Officer, effective February 15, 2015. Ms. Jantzen held the position of Controller since May 2013. Prior to joining the Company, Ms. Jantzen was a senior manager at Marcum LLP, our independent registered accounting firm since June 23, 2014, where she managed multiple engagements and specialized in SEC policies, practices and procedures, including Sarbanes-Oxley compliance. Ms. Jantzen holds a B.S. in Accounting from the State University of New York at Binghamton and is also a Certified Public Accountant (CPA).

***Chief Information Officer — Judith Murrah***

Ms. Judith Murrah has been our Chief Information Officer since June 1, 2013. Ms. Murrah is responsible for information technology strategy and implementation. Ms. Murrah comes to 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 an MBA from Harvard Business School, and a B.S. 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 Chief Scientific Officer — Ming-Hwa Benjamin Liang***

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

Our executive officers are elected by, and serve at the discretion of, our Board of Directors. There are no family relationships among any of our directors or executive officers.

## **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 us and our stockholders. His combined role enables decisive leadership, ensures clear accountability, and enhances our ability to communicate its message and strategy clearly and consistently to our 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 [www.adnas.com/investors](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)  |       |              |            |

(I)

Chairperson  
Member  
Independent director

### *Audit Committee*

Messrs. Bitzer (Chairperson), Ryan and Shamash currently serve on the audit committee. 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*

Messrs. Bitzer, Shamash (Chairperson) and Ryan currently serve on the compensation committee. 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 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 our 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 our 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 2016 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 2015 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 Corporate 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 [www.adnas.com/investors](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](http://www.adnas.com) and/or in our public filings with the SEC.

### **Section 16(a) Beneficial Ownership Reporting Compliance**

Section 16(a) of the Exchange Act requires our officers and directors and persons who beneficially own more than 10% of any class of our equity securities registered pursuant to Section 12 of the Exchange Act to file reports of securities ownership and changes in such ownership with the SEC. Officers, directors and greater than 10% beneficial owners also are required by SEC rules to furnish us with copies of all Section 16(a) forms they file. Based solely upon a review of the copies of such forms furnished to us during or with respect to the fiscal year ended September 30, 2015, as the case may be, and on written representations from these reporting persons, we believe that during the fiscal year ended September 30, 2015 all of our officers and directors filed the required reports on a timely basis under Section 16(a).

## **ITEM 11. EXECUTIVE COMPENSATION.**

### **Compensation Overview**

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 are no change in control, severance or noncompetition agreements with any other 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, as described below in the section entitled "—Potential Payments upon Termination of Employment or a Change of Control."

### **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 of Directors with respect to the compensation of the Chief Executive Officer including incentive compensation plans and equity-based plans. Currently, 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 (other than with respect to his own compensation), 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 the fiscal year ended September 30, 2015 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 or formal benchmarking 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 in accordance with the terms of his employment agreement, based on the recommendation of the compensation committee (provided that any change may increase, but not decrease, the Chief Executive Officer's annual rate of base salary). The base salary for each of the other named executive officers is reviewed annually by the Chief Executive Officer and any adjustments are communicated to 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 in accordance with the terms of his employment agreement as well as 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, which 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 of Directors 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.

Bonuses have not yet been declared for the fiscal year ended September 30, 2015; however in addition, in accordance with the terms of his employment agreement, Dr. Hayward earned a \$375,000 incentive bonus as a result of our revenue exceeding \$9 million for the fiscal year ending September 30, 2015.

During December 2014, Ms. Jantzen was awarded a discretionary cash bonus in the amount of \$10,000 in connection with her services as Controller of the Company prior to her appointment to the position of Chief Financial Officer based on Ms. Jantzen's performance.



### ***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 generally 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, 2015, 2014 and 2013. We refer to these executive officers as our “named executive officers.”

|  | Year | Salary<br>(\$)(c) | Bonus<br>(\$)(d) | Stock Awards |            | Non-Equity<br>Incentive<br>Plan<br>Compensation<br>(\$)(g) | Change<br>in<br>Pension<br>Value<br>and<br>Nonqualified<br>Deferred<br>Compensation<br>(\$)(i) | All<br>Other<br>Compensation<br>(\$)(j) | Total<br>Compensation<br>(\$)(j) |
|--|------|-------------------|------------------|--------------|------------|--|--|---|----------------------------------|
|  |      |                   |                  | (\$)(e)      | (\$)(f)(1) |  |  |   |                                  |
| James A. Hayward<br>Chairman, President<br>and CEO(6)                      | 2015 | 311,538 (2)       | 375,000(3)       | —            | 706,025    | —  | —  | —                                       | 1,392,563                        |
|  | 2014 | 343,269           | —                | —            | 3,530,437  | —  | —  | —                                       | 3,873,706                        |
|  | 2013 | 319,974           | 150,000          | —            | —          | —  | —  | —                                       | 469,974                          |
| Beth M. Jantzen<br>CFO(4)  | 2015 | 209,615           | 10,000           | —            | 194,806    | —  | —  | —                                       | 414,421                          |
|  | 2014 | —                 | —                | —            | —          | —  | —  | —                                       | —                                |
|  | 2013 | —                 | —                | —            | —          | —  | —  | —                                       | —                                |
| Judith Murrah<br>CIO(5)  | 2015 | 240,385           | —                | —            | 186,525    | —  | —  | —                                       | 426,910                          |
|  | 2014 | 250,000           | —                | —            | 195,691    | —  | —  | —                                       | 445,691                          |
|  | 2013 | 81,731            | —                | —            | —          | —  | —  | —                                       | 81,731                           |
| Ming-Hwa Benjamin<br>Liang<br>Chief Scientific Officer<br>and Secretary(6) | 2015 | 140,000           | —                | —            | 320,540    | —  | —  | —                                       | 460,540                          |
|  | 2014 | 140,000           | 2,000            | —            | 211,826    | —  | —  | —                                       | 353,826                          |
|  | 2013 | 140,000           | 10,000           | —            | —          | —  | —  | —                                       | 150,000                          |

(1) The amounts in column (f) represent the grant date fair value calculated in accordance with ASC 718 based on the Black Scholes value of the options on the grant date. Information concerning these amounts and the assumptions used to calculate these amounts may be found under the caption "Equity Based Compensation" in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

(2) \$50,000 of Mr. Hayward's base salary for fiscal 2015 as reported in this column was deferred and will be repaid if and when the Company attains certain performance targets.

(3) As a result of the Company's revenue exceeding \$9 million for the fiscal year ending September 30, 2015, Dr. Hayward earned a bonus of \$375,000.

(4) Ms. Jantzen was appointed as Chief Financial Officer effective February 16, 2015. Ms. Jantzen's annual base salary is \$225,000 and she received 30,000 options upon becoming CFO. The \$10,000 bonus was received prior to her becoming CFO.

(5) Ms. Murrah's annual base salary is \$250,000.

(6) Dr. Hayward and Dr. Liang had the terms for 166,667 options extended for an additional five years, that were set to originally expire on June 30, 2015. This resulted in stock based compensation expense of \$270,800 for each of them and is included in the table above. Each amount represent the grant date fair value under ASC 718 based on the Black Scholes value of the options on the grant date. Information concerning these amounts and the assumptions used to calculate these amounts may be found under the caption "Equity Based Compensation" in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

**Grants of Plan-Based Awards**

The following table provides information regarding grants of plan-based awards to our named executive officers during the fiscal year ended September 30, 2015:

| Name                    | Grant Date                   | All Other  | All Other  | Exercise or Base Price of Option Awards (\$/Sh) | Grant Date Fair Value of Stock and Option Awards (4) (\$) |
|-------------------------|------------------------------|--|--|---|---|
|                         |                              | Stock Awards: Number of Shares of Stock or Units (1) (#) | Option Awards: Number of Securities Underlying Options (#) |   |   |
| James A. Hayward        | 12/22/2014 <sup>(1)</sup>    | —  | 175,000  | \$ 2.86   | \$ 435,224  |
|                         | 6/30/2015 <sup>(2)</sup>     | —  | 166,667  | \$ 3.60   | \$ 270,800  |
| Beth Jantzen            | 12/22/2014 <sup>(1)(5)</sup> | —  | 40,000   | \$ 2.86   | \$ 99,480   |
|                         | 2/15/2015 <sup>(3)</sup>     | —  | 30,000   | \$ 3.45   | \$ 95,326   |
| Judith Murrah           | 12/22/2014 <sup>(1)</sup>    | —  | 75,000   | \$ 2.86   | \$ 186,525  |
| Ming-Hwa Benjamin Liang | 12/22/2014 <sup>(1)</sup>    | —  | 20,000   | \$ 2.86   | \$ 49,740   |
|                         | 6/30/2015 <sup>(2)</sup>     | —  | 166,667  | \$ 3.60   | \$ 270,800  |

(1) Options are exercisable for ten years and vested immediately.

(2) On June 30, 2015, Dr. Hayward and Dr. Liang had the terms for 166,667 options extended for an additional five years, that were set to originally expire on June 30, 2015.

- (3) Options are exercisable for five years with vesting at 25% each anniversary over four years from the date of grant.
- (4) These amounts represent the grant date fair value calculated in accordance with ASC 718 based on the Black Scholes value of the options on the grant date.
- (5) These options were granted to Ms. Jantzen for her service as Controller prior to her appointment as the Chief Financial Officer.

**Outstanding Equity Awards at Fiscal Year-End**

The following table shows information concerning outstanding equity awards as of September 30, 2015 held by the named executive officers.

| Name                    | Option Awards   |  | Option<br>Exercise<br>Price<br>(\$) | Option<br>Expiration<br>Date |            |
|-------------------------|---|--|-------------------------------------|------------------------------|------------|
|                         | Number<br>of<br>Securities<br>Underlying<br>Unexercised<br>Options<br>(#) | Number of<br>Securities<br>Underlying<br>Unexercised<br>Options<br>(#) |                                     |                              |            |
| James A. Hayward        | 166,667   | (5)  | —                                   | 3.60                         | 6/30/2020  |
|                         | 666,667   |  | —                                   | 3.51                         | 7/11/2018  |
|                         | 208,334   | (1)  | 625,000                             | 5.82                         | 10/16/2018 |
|                         | 175,000   | (6)  | —                                   | 2.86                         | 12/21/2024 |
| Beth M. Jantzen         | 1,042   | (3)(7)   | 3,125                               | 5.31                         | 10/31/2018 |
|                         | 1,042   | (3)(8)   | 3,125                               | 6.96                         | 11/28/2018 |
|                         | 4,167   | (3)  | —                                   | 8.16                         | 12/09/2018 |
|                         | 40,000  | (3)(6)   | —                                   | 2.86                         | 12/21/2024 |
| Judith Murrah           | —   | (4)  | 30,000                              | 3.45                         | 2/14/2025  |
|                         | 8,334   | (2)  | 25,000                              | 7.02                         | 12/01/2018 |
|                         | 75,000  | (6)  | —                                   | 2.86                         | 12/21/2024 |
| Ming-Hwa Benjamin Liang | 4,167   |  | —                                   | 8.16                         | 12/09/2018 |
|                         | 166,667   | (5)  | —                                   | 3.60                         | 6/30/2020  |
|                         | 12,500  | (1)  | 37,500                              | 5.82                         | 10/16/2018 |
|                         | 20,000  | (6)  | —                                   | 2.86                         | 12/21/2024 |

On October 17, 2013, we granted Dr. James A. Hayward, and Dr. Ming-Hwa Benjamin Liang options to purchase (1)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.

(2) 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.

(3) These options were granted to Ms. Jantzen for her service as Controller prior to her appointment as the Chief Financial Officer.

(4) On February 15, 2015, we granted 30,000 options to purchase our common stock at an exercise price of \$3.45 per share for ten years to Ms. Jantzen with vesting at 25% each anniversary for the next four years.

(5) On June 30, 2015, Dr. Hayward and Dr. Liang had the term of each of these options extended for an additional five years, that were set to originally expire on June 30, 2015.

(6) On December 22, 2014, we granted an aggregate of 610,000 options to purchase our common stock at an exercise price of \$2.86 per share for ten years to employees, with immediate vesting. As part of this grant, Dr. Hayward, Ms. Jantzen, Ms. Murrah, and Dr. Liang were granted 175,000, 40,000, 75,000 and 20,000 options, respectively.

(7) 25% of these options will vest and become exercisable each anniversary over four years, commencing on October 14, 2014, one year from the date of grant.

(8) 25% of these options will vest and become exercisable each anniversary over four years, commencing on November 29, 2014, one year from the date of grant.



### **Option Exercises and Stock Vested**

During the fiscal year ended September 30, 2015, 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, except for Dr. Hayward as set forth below under the caption "Employment Agreement with Dr. James A. Hayward."

### **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. Pursuant to contract, Dr. Hayward's annual salary is \$350,000. The Board of Directors, acting in its discretion, may grant annual bonuses to Dr. Hayward. Dr. Hayward will be eligible for a special cash incentive 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. As a result of the Company's revenue exceeding \$9 million for the fiscal year ended September 30, 2015, Dr. Hayward earned a bonus of \$375,000 for the fiscal year ended September 30, 2015 and is included in accounts payable and accrued expenses in the accompanying consolidated balance sheet. On November 30, 2012, the Board of Directors 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.

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 greater of either (X) the annual bonus he would have received if employment had continued through the end of the year of termination or (Y) the prior year's bonus; 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 for 18 months post-termination; 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 on an annual basis and the salary reduction continued throughout fiscal 2015. This salary reduction is accrued and will be subject to repayment when and if, while Dr. Hayward remains continuously employed by the Company, 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. Effective January 1, 2015, the Chief Executive Officer's annual salary was voluntarily reduced by an additional \$50,000; however, this second reduction is not subject to repayment. Accordingly, his current annual base salary is \$250,000 (with an additional \$50,000 deferred subject to repayment under the circumstances described above).

### **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 base salary continuation of \$750,000 (three times his annual base salary) if his employment was terminated on September 30, 2015 by us without "cause" or by Dr. Hayward for "good reason" extended exercisability of outstanding vested options (for three years from termination date or, if earlier, the expiration of the fixed option term) and company-paid COBRA continuation coverage for 18 months post-termination.

In the context of a "change in control" of the Company had it occurred on September 30, 2015, 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 of \$750,000 (three times his annual base salary) and other benefits set forth in the preceding paragraph. 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.

If a "change in control" of the Company occurred on September 30, 2015 and Dr. Hayward's employment was not terminated, then all of Dr. Hayward's outstanding options and other equity incentive awards would have become fully vested.

### **Director Compensation: Fiscal 2015**

During the fiscal year ended September 30, 2015, 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 of Directors 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 of Directors, a 10-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 of Directors 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<br>Earned<br>or<br>Paid in<br>Cash<br>(\$) | Stock<br>Awards<br>(\$) | Option<br>Awards<br>(\$)(1) | All Other<br>Compensation<br>(\$) | Total<br>(\$)(1)(3) |
|----------------------|---|-------------------------|-----------------------------|-----------------------------------|---------------------|
| Sanford R. Simon (2) | —   | —                       | 91,590                      | —                                 | 91,590              |
| Yacov A. Shamash (2) | —   | —                       | 91,590                      | —                                 | 91,590              |
| John Bitzer, III (2) | —   | —                       | 91,590                      | —                                 | 91,590              |
| Joseph D. Ceccoli    | —   | —                       | 78,500                      | —                                 | 78,500              |
| Charles S. Ryan (2)  | —   | —                       | 91,590                      | —                                 | 91,590              |

(1) A 10-year option to purchase 30,972 shares of our common stock was granted by the Board to each of the non-employee directors on December 22, 2014 at an exercise price of \$2.86 per share, with one year vesting.

(2) A 10-year option to purchase an additional 5,162 shares of our common stock at an exercise price of \$2.86 per share was granted to Mr. Simon, Mr. Shamash, Mr. Bitzer and Mr. Ryan on December 22, 2014, with one year vesting.

(3) The amounts represent the grant date fair value calculated in accordance with ASC 718 based on the Black Scholes value of the options on the grant date. As of September 30, 2015, Mr. Simon, Mr. Shamash, Mr. Bitzer, Mr. Ceccoli and Mr. Ryan had total outstanding option awards (including warrants) of 84,467, 95,890, 72,016, 30,972 and 72,016 shares of our common stock, respectively.

**ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.****SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

The following table sets forth certain information regarding the shares of our common stock beneficially owned as of December 8, 2015, (i) by each person who is known to us to beneficially own more than 5% of the outstanding common stock, (ii) by each of the executive officers named in the table under “Executive Compensation” and by each of our directors, and (iii) by all officers and directors as a group.

Unless otherwise indicated below, each person or entity has an address in care of our principal executive offices at 50 Health Sciences Drive, Stony Brook, New York 11790.

| Name and Address of Beneficial Owner     | Title of Class | Number of<br>Shares Owned<br>(1)(2) |          | Percentage<br>of Class<br>(3) |   |
|--|----------------|-------------------------------------|----------|-------------------------------|---|
| <b>Executive Officers and Directors:</b> |                |                                     |          |                               |   |
| James A. Hayward                         | Common Stock   | 3,634,683                           | (4)      | 14.10                         | % |
| Yacov A. Shamash                         | Common Stock   | 95,890                              | (5)      |                               | * |
| John Bitzer, III (11)                    | Common Stock   | 1,304,842                           | (6)(7)   | 5.39                          | % |
| Joseph D. Ceccoli                        | Common Stock   | 30,972                              |          |                               | * |
| Beth M. Jantzen                          | Common Stock   | 46,251                              | (12)(14) |                               | * |
| Judith Murrah                            | Common Stock   | 88,956                              | (13)     |                               | * |
| Charles S. Ryan                          | Common Stock   | 72,016                              | (6)      |                               | * |
| Ming-Hwa Benjamin Liang                  | Common Stock   | 208,303                             | (8)      |                               | * |
| Sanford R. Simon                         | Common Stock   | 84,467                              | (9)      |                               | * |

|  |              |           |      |       |   |
|--|--------------|-----------|------|-------|---|
| <b>All directors and officers as a group (9 persons)</b> | Common Stock | 5,566,380 | (10) | 20.97 | % |
| <b>5% Stockholders:</b>                                  |              |           |      |       |   |
| General American Investors Company, Inc.(15)             | Common Stock | 2,035,000 |      | 8.16  | % |
| Delabarta, Inc. (16)                                     | Common Stock | 1,205,959 |      | 5.00  | % |

\*indicates less than one percent

Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to the shares shown. Except as indicated by footnote and subject to community property laws where applicable, to our knowledge, the stockholders named in the table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them. A person is deemed to be the beneficial owner of securities that can be acquired by such person within 60 days upon the exercise of options, warrants or convertible securities (in any case, the "Currently Exercisable Options").

Does not include the remaining unvested shares subject to options granted on October 17, 2013 pursuant to the 2005 Incentive Stock Plan, which vest 25% of the underlying shares ratably on each anniversary thereafter until fully vested on the fourth anniversary of the date of grant, including 625,001 to James A. Hayward, 37,500 to (2)Ming-Hwa Benjamin Liang and 3,125 to Beth Jantzen. Does not include the remaining unvested shares subject to 25,001 options granted to Judith Murrah on December 2, 2013, pursuant to the 2005 Incentive Stock Plan, which vest 25% of the underlying shares ratably on each anniversary thereafter until fully vested on the fourth anniversary of the date of grant.

(3) Based upon 24,064,092 shares of common stock outstanding as of December 8, 2015. Each beneficial owner's percentage ownership is determined by assuming that the Currently Exercisable Options that are held by such person (but not those held by any other person) have been exercised and converted.

(4) Includes 1,715,429 shares underlying currently exercisable options and warrants.

(5) Includes 59,756 shares underlying currently exercisable options and warrants.

(6) Includes 35,882 shares underlying currently exercisable options for Messrs. Bitzer and Ryan.

(7) Includes 1,129,036 shares of common stock and 76,923 warrants owned by Delabarta, Inc., a wholly-owned subsidiary of ABARTA, Inc. Mr. Bitzer is President and a member of the board of directors of each of Delabarta, Inc. and ABARTA, Inc. Mr. Bitzer disclaims beneficial ownership of the shares held by Delabarta, Inc. except to the extent of his pecuniary interest therein.

(8) Includes 199,167 shares underlying currently exercisable options and warrants.

(9) Includes 48,333 shares underlying currently exercisable options and warrants.

(10) Includes 2,305,124 shares underlying currently exercisable options and warrants.

(11) The address of the principal business office for the stockholder is 1000 Gamma Drive, Suite 500, Pittsburgh, PA 15238. John Bitzer, III, one of our directors is President and Chief Executive Officer of the stockholder. Mr. Bitzer disclaims beneficial ownership of the shares held by the stockholder, except to the extent of his pecuniary interest therein.

(12) Includes 46,251 shares underlying currently exercisable options.

(13) Includes 87,501 shares underlying currently exercisable options.

(14) Does not include the remaining unvested shares subject to options granted on November 29, 2013, pursuant to the 2005 Incentive Stock Plan, which vest 25% one year from the grant date, including 3,125 to Ms. Jantzen.

(15) This information is based solely on a Schedule 13G filed with the SEC on April 2, 2015 by General American Investors Company, Inc., which reported sole voting power and sole dispositive power with respect to 2,035,000

shares of common stock, which includes 860,000 fully exercisable warrants. The address of the principal business office for the investment manager is 100 Park Avenue, 35th Floor, New York, NY 10017.

This information is based solely on a Schedule 13G filed with the SEC on February 25, 2015 by Delabarta, Inc. and its parent company, ABARTA, Inc. Delabarta, Inc. reported sole voting and sole dispositive power of 1,213,234 shares of common stock, which includes 84,198 (76,923 remain outstanding) shares subject to warrants that are currently exercisable. John Bitzer, III, one of our directors is President and Chief Executive Officer of the (16) stockholder. Mr. Bitzer disclaims beneficial ownership of the shares held by the stockholder, except to the extent of his pecuniary interest therein. As the parent company of Delabarta, Inc., ABARTA, Inc. may be deemed to be the indirect beneficial owner of the 1,213,234 shares beneficially owned by Delabarta, Inc. The address of the principal office of Delabarta, Inc. is 1105 North Market Street, Suite 1300, Wilmington Delaware 19801. The address of the principal office of ABARTA, Inc. is 200 Alpha Drive, Pittsburgh, Pennsylvania 15238.

## **Equity Compensation Plan Information**

### ***2005 Incentive Stock Plan***

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 (the "Incentive 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. On January 21, 2015, the Board of Directors approved an amendment to the Incentive Plan, which was approved by stockholders on June 16, 2015. The amendment increases the number of shares of common stock that can be issued as stock awards and stock options thereunder to an aggregate of 8,333,333. The amendment also extends the Incentive Plan's expiration date to January 25, 2025.

The Board of Directors, in its discretion, may award stock and stock options to executive officers and key employees as part of their compensation for employment or for retention purposes.



The following table sets forth certain information regarding our compensation plans as of September 30, 2015:

| Plan Category   | Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights | Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights | Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a)) |
|---|---|---|---|
|   | (a)   | (b)   | (c)   |
| Equity compensation plans approved by security holders ( <i>2005 Incentive Stock Plan</i> ) | 3,458,905   | \$ 4.42   | 4,152,446   |
| Equity compensation plans not approved by security holders                                  | —   | \$ —  | —   |
| Total   | 3,458,905   | \$ 4.42   | 4,152,446   |

### ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE.

#### James A. Hayward

**Promissory Note.** 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 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, the public offering price per share and warrant in our underwritten public offering which closed on November 20, 2014.

On November 20, 2014, Dr. Hayward purchased \$250,000 in common stock and warrants in our underwritten public offering on the same terms as the other investors in the offering.

### **Delabarta, Inc./John Bitzer, III**

John Bitzer, III, one of our directors, is President and Chief Executive Officer of ABARTA, Inc., a private, third- and fourth-generation family holding-company, which owns Delabarta, Inc. On June 21, 2012, Abarta Partners I, a partnership administered by Mr. Bitzer for which his revocable trust is a partner, purchased 592,943 shares of our common stock at a purchase price of \$2.60 per share for gross proceeds of \$1,542,600 in a private placement transaction. On June 23, 2014, Delabarta, Inc. purchased 7,275 shares of our common stock at a purchase price of \$6.87 per share for gross proceeds of \$50,000 in a private placement transaction. Delabarta, Inc. also received 7,275 warrants to purchase shares of our common stock as part of this private placement transaction.

On November 20, 2014, Delabarta, Inc. purchased \$250,000 in common stock and warrants in our underwritten public offering on the same terms as the other investors in the offering.

## Director Independence

Our Board of Directors currently consists of six members: James A. Hayward, John Bitzer, III, Joseph D. Ceccoli, Charles S. Ryan, Yacov A. Shamash, and Sanford R. Simon. Although our securities were not approved for listing on The NASDAQ Capital Market until our underwritten public offering in November 2014 and were not subject to The NASDAQ requirements that a majority of the Board of Directors be independent, the Board of Directors has determined that currently and at all times during the fiscal year ended September 30, 2015, each of our directors other than Dr. Hayward are “independent” as defined by the listing standards of The NASDAQ Capital Market, constituting a majority of independent directors of our Board of Directors as required by the rules of The NASDAQ Capital Market. The Board of Directors considers in its evaluation of independence whether any director has a relationship with us that would interfere with the exercise of independent judgment in carrying out his or her responsibilities of a director.

## ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES.

The following table sets forth fees billed to us by our current and former independent auditors during fiscal years ended September 30, 2015 and 2014 for: (i) services rendered for the audit of our annual financial statements and the review of our quarterly financial statements, (ii) services by our auditor that are reasonably related to the performance of the audit or review of our financial statements and that are not reported as Audit Fees, (iii) services rendered in connection with tax compliance, tax advice and tax planning, and (iv) all other fees for services rendered.

| RBSM LLP (1)            |   |   |
|-------------------------|---|---|
|                         | Fiscal year<br>ended<br>September<br>30, 2015 | Fiscal year<br>ended<br>September<br>30, 2014 |
| (i) Audit Fees          | \$ 207,908                                    | \$ 98,500                                     |
| (ii) Audit Related Fees | —   | 37,000  |
| (iii) Tax Fees          | —   | 7,000   |
| (iv) All Other Fees     | —   | —   |
| Total Fees              | \$ 207,908                                    | \$ 142,500                                    |

| Marcum LLP (2) |  |   |
|----------------|--|---|
|                | Fiscal year<br>ended<br>September<br>30,<br>2015 | Fiscal year<br>ended<br>September<br>30, 2014 |

|                         |            |            |
|-------------------------|------------|------------|
| (i) Audit Fees          | \$ 230,424 | \$ 104,000 |
| (ii) Audit Related Fees | 8,788      | —          |
| (iii) Tax Fees          | 8,240      | —          |
| (iv) All Other Fees     | —          | —          |
| Total Fees              | \$ 247,452 | \$ 104,000 |

(1)RBSM served as our independent auditors through June 23, 2014

(2)Marcum is our current independent auditors commencing on June 23, 2014

*Audit Fees* — Consists of fees billed for professional services rendered for the audit of our consolidated financial statements, review of the interim consolidated financial statements included in quarterly reports, and services that are normally provided by our independent auditors in connection with statutory and regulatory filings or engagements.

*Audit Related Fees* — Consists of fees billed for assurance and related services that are reasonably related to the performance of the audit or review of our consolidated financial statements and are not reported under “Audit Fees.”, such as accounting consultation and audits in connection with acquisitions.

*Tax Fees* — Consists of fees billed for professional services for tax compliance, tax advice and tax planning.

*All Other Fees* — Consists of fees for products and services other than the services reported above. There were no management consulting services provided in fiscal 2013.

The Board of Directors has considered whether the provision of non-audit services is compatible with maintaining the principal accountant’s independence.

**Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Auditors**

The audit committee has adopted a policy and procedures for the pre-approval of audit and non-audit services provided by the independent auditors. These services may include audit services, audit-related services, tax services and other services. Pre-approval is generally provided for up to one year and any pre-approval is detailed as to the particular service or category of services and is generally subject to a specific budget. The independent auditors and management are required to periodically report to our audit committee regarding the extent of services provided by the independent auditors in accordance with this pre-approval, and the fees for the services performed to date. The audit committee may also pre-approve particular services on a case-by-case basis.

**ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.**

(a) We have filed the following documents as part of this Form 10-K:

1. Consolidated Financial Statements

Our consolidated financial statements at September 30, 2015 and 2014 and for the years ended September 30, 2015 and 2014, and the notes thereto, together with the report of our independent registered public accounting firm on those consolidated financial statements, are hereby filed as part of this report beginning on page F-1.

2. Financial Statement Schedules

All financial statement schedules have been omitted since the required information is not applicable or is not present in amounts sufficient to require submission of the schedule, or because the information required is included in the consolidated financial statements and notes thereto.

3. Exhibits

The information required by this item is set forth on the exhibit index that follows the signature page of this report.

**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

**APPLIED DNA SCIENCES, INC.**

Date: December 14, 2015 /s/ James A. Hayward  
 James A. Hayward  
*President and Chief Executive Officer*

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

| <b>Name</b>                                       | <b>Position</b>   | <b>Date</b>       |
|---|---|-------------------|
| /s/ <b>JAMES A. HAYWARD</b><br>James A. Hayward   | Chief Executive Officer ( <i>Principal Executive Officer</i> ),<br>President, Chairman of the Board of Directors and Director | December 14, 2015 |
| /s/ <b>BETH M. JANTZEN</b><br>Beth M. Jantzen     | Chief Financial Officer ( <i>Principal Financial Officer and<br/>Principal Accounting Officer</i> )                           | December 14, 2015 |
| /s/ <b>JOHN BITZER, III</b><br>John Bitzer, III   | Director  | December 14, 2015 |
| /s/ <b>JOSEPH D. CECCOLI</b><br>Joseph D. Ceccoli | Director  | December 14, 2015 |
| /s/ <b>CHARLES S. RYAN</b><br>Charles S. Ryan     | Director  | December 14, 2015 |
| /s/ <b>YACOV A. SHAMASH</b><br>Yacov A. Shamash   | Director  | December 14, 2015 |
| /s/ <b>SANFORD R. SIMON</b><br>Sanford R. Simon   | Director  | December 14, 2015 |

**EXHIBIT INDEX**

The following exhibits are included as part of this Form 10-K.

| <b>Exhibit<br/>Number</b> | <b>Description</b>  | <b>Incorporated by Reference</b> |                |                 | <b>Filed or<br/>Furnished<br/>Herewith</b> |                   |
|---------------------------|---|----------------------------------|----------------|-----------------|--|-------------------|
|                           |   | <b>Form</b>                      | <b>Exhibit</b> | <b>File No.</b> |  | <b>Date Filed</b> |
| 3.1                       | Certificate of Incorporation  | 8-K                              | 3.1            | 002-90539       | 1/16/2009                                  |                   |
| 3.2                       | Certificate of Amendment of Certificate of Incorporation  | 8-K                              | 3.1            | 002-90539       | 6/30/2010                                  |                   |
| 3.3                       | Second Certificate of Amendment of Certificate of Incorporation   | 8-K                              | 3.1            | 002-90539       | 1/30/2012                                  |                   |
| 3.4                       | Third Certificate of Amendment of Certificate of Incorporation  | 8-K                              | 3.1            | 002-90539       | 10/29/2014                                 |                   |
| 3.5                       | Form of Certificate of Designations of the Series A Convertible Preferred Stock   | 8-K                              | 3.1            | 002-90539       | 11/29/2012                                 |                   |
| 3.6                       | Form of Certificate of Designations of the Series B Convertible Preferred Stock   | 8-K                              | 3.1            | 002-90539       | 7/22/2013                                  |                   |
| 3.7                       | By-Laws   | 8-K                              | 3.2            | 002-90539       | 1/16/2009                                  |                   |
| 4.1                       | Form of Underwriter's Warrant issued to Maxim Group LLC, dated as of November 20, 2014  | S-1/A                            | 10.26          | 333-199121      | 10/30/2014                                 |                   |
| 4.4                       | Form of Underwriter's Warrant issued to Maxim Group LLC, dated as of April 1, 2015  | 8-K                              | 4.1            | 001-36745       | 3/27/2015                                  |                   |
| 4.5                       | Form of Purchase Warrant, dated as of November 25, 2015   | 8-K                              | 4.1            | 001-36745       | 11/23/2015                                 |                   |
| 4.6                       | Form of Placement Agent Warrant issued to Maxim Group LLC   | 8-K                              | 4.2            | 001-36745       | 11/23/2015                                 |                   |
| 10.1†                     | Applied DNA Sciences, Inc. 2005 Incentive Stock Plan and form of employee stock option agreement thereunder, as amended and restated as of January 21, 2015 |                                  |                |                 |  | Filed             |
| 10.2*                     | Joint Development and Marketing Agreement, dated April 18, 2007 by and between Applied DNA Sciences and International Imaging Materials, Inc.               | 8-K                              | 10.1           | 002-90539       | 4/24/2007                                  |                   |
| 10.3                      | Form of Subscription Agreement, dated July 15, 2011, by and among Applied DNA Sciences, Inc. and the investors named on the signature pages thereto         | 10-K                             | 10.28          | 002-90539       | 12/9/2011                                  |                   |
| 10.4                      | Form of Warrant, dated July 15, 2011, issued to the investors named on the signature pages  | 10-K                             | 10.29          | 002-90539       | 12/9/2011                                  |                   |
| 10.5†                     |   | 10-K                             | 10.32          | 002-90539       | 12/9/2011                                  |                   |



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|       |  |      |       |           |            |
|-------|--|------|-------|-----------|------------|
|       | Employment Agreement, dated July 11, 2011,<br>between James A. Hayward and Applied DNA<br>Sciences, Inc.   |      |       |           |            |
| 10.6* | Exclusive Sales Agreement dated November 1, 2011<br>by and between Applied DNA Sciences, Inc. and<br>Nissha Printing Co., Ltd.                                       | 10-Q | 10.1  | 002-90539 | 2/14/2012  |
| 10.7  | Software Distribution Agreement, dated as of<br>January 25, 2012, by and between Applied DNA<br>Sciences, Inc. and DivineRune, Inc.                                  | 10-Q | 10.1  | 002-90539 | 5/15/2012  |
| 10.8  | Form of Subscription Agreement dated June 21,<br>2012, by and among Applied DNA Sciences, Inc.<br>and the investor named on the signature page thereto               | 10-K | 10.37 | 002-90539 | 12/20/2012 |
| 10.9† | Form of Indemnification Agreement dated as of<br>September 7, 2012, by and between Applied DNA<br>Sciences, Inc. and each of its directors and executive<br>officers | 8-K  | 10.1  | 002-90539 | 9/13/2012  |

| Exhibit Number | Description   | Incorporated by Reference |         |            |            | Filed or Furnished Herewith |
|----------------|---|---------------------------|---------|------------|------------|-----------------------------|
|                |   | Form                      | Exhibit | File No.   | Date Filed |                             |
| 10.10          | Asset Purchase Agreement dated May 10, 2013, between Applied DNA Sciences, Inc. and RedWeb Technologies Limited   | 10-Q                      | 10.1    | 002-90539  | 8/13/2013  |                             |
| 10.11          | Agreement of Lease dated June 14, 2013, between Applied DNA Sciences, Inc. and Long Island High Technology Incubator, Inc.  | 10-Q                      | 10.2    | 002-90539  | 8/13/2013  |                             |
| 10.12*         | Term sheet for Mutual Cooperation with Borealis AG dated March 31, 2014   | 8-K/A                     | 10.1    | 002-90539  | 7/22/2014  |                             |
| 10.13          | Form of Subscription Agreement dated June 3, 2014   | 8-K                       | 10.1    | 002-90539  | 6/6/2014   |                             |
| 10.14          | Form of Warrant dated June 3, 2014  | 8-K                       | 10.2    | 002-90539  | 6/6/2014   |                             |
| 10.15          | Form of Award/Contract issued by U.S. Missile Defense Agency dated July 14, 2014  | 8-K                       | 10.1    | 002-90539  | 7/18/2014  |                             |
| 10.16          | Form of Promissory Note   | 8-K                       | 10.1    | 002-90539  | 9/17/2014  |                             |
| 10.17          | Form of Award/Contract awarded by Office of Secretary of Defense on behalf of Defense Logistics Agency dated August 28, 2014  | 8-K/A                     | 10.1    | 002-90539  | 9/8/2014   |                             |
| 10.18          | Warrant Repurchase Option Agreement dated October 28, 2014 between Applied DNA Sciences, Inc. and Crede CG III, Ltd.  | S-1/A                     | 10.28   | 333-199121 | 10/30/2014 |                             |
| 10.19          | Letter Agreement dated November 11, 2014 between Applied DNA Sciences, Inc. and James A. Hayward regarding Exchange of 12.5% Promissory Note                            | S-1/A                     | 10.29   | 333-199121 | 11/12/2014 |                             |
| 10.20          | Underwriting agreement between Applied DNA Sciences, Inc. and Maxim Group LLC dated November 17, 2014   | S-1/A                     | 1.1     | 333-199121 | 11/12/2014 |                             |
| 10.21          | Form of Warrant Agreement between Applied DNA Sciences, Inc. and American Stock Transfer & Trust Company, LLC, as warrant agent   | S-1/A                     | 10.25   | 002-90539  | 11/12/14   |                             |
| 10.22          | First Amendment to Warrant Agreement dated April 1, 2015 between Applied DNA Sciences, Inc. and American Stock Transfer & Trust Company, LLC as warrant agent           | 8-K                       | 4.1     | 001-36745  | 4/1/2015   |                             |
| 10.23*         | Mutual License Agreement dated March 25, 2015 between Applied DNA Sciences, Inc. and Divatex Home Fashion, Inc.   | 10-Q                      | 10.1    | 001-36745  | 5/11/2015  |                             |
| 10.24          | Underwriting Agreement dated March 27, 2015, between Applied DNA Sciences, Inc. and Maxim Group LLC, as representative of the underwriters named on Schedule A thereto. | 8-K                       | 1.1     | 001-36745  | 3/27/2015  |                             |
| 10.25**        |   | 8-K                       | 2.1     | 001-36745  | 9/17/2015  |                             |

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|         |  |       |      |            |            |
|---------|--|-------|------|------------|------------|
|         | Asset Purchase Agreement dated September 11, 2015 between Applied DNA Sciences, Inc. and Vandalia Research, Inc.   |       |      |            |            |
| 10.26   | Placement Agency Agreement by and between Applied DNA Sciences, Inc. and Maxim Group LLC, dated November 23, 2015  | 8-K/A | 10.1 | 001-36745  | 11/23/2015 |
| 10.27   | Form of Securities Purchase Agreement, dated as of November 23, 2015   | 8-K/A | 10.2 | 001-36745  | 11/23/2015 |
| 10.28†  | Applied DNA Sciences, Inc. Salary Adjustment Letter to File for Dr. James A. Hayward, dated as of June 23, 2014  |       |      |            | Filed      |
| 21.1    | Subsidiaries of Applied DNA Sciences, Inc.   | S-1/A | 21.1 | 333-199121 | 10/30/2014 |
| 23.1    | Consent of Marcum LLP  |       |      |            | Filed      |
| 31.1    | Certification of Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |       |      |            | Filed      |
| 31.2    | Certification of Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |       |      |            | Filed      |
| 32.1    | Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.                     |       |      |            | Filed      |
| 32.2    | Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.                     |       |      |            | Filed      |
| 101 INS | XBRL Instance Document   |       |      |            | Filed      |
| 101 SCH | XBRL Taxonomy Extension Schema Document  |       |      |            | Filed      |
| 101 CAL | XBRL Taxonomy Extension Calculation Linkbase Document  |       |      |            | Filed      |
| 101 DEF | XBRL Taxonomy Extension Definitions Linkbase Document  |       |      |            | Filed      |
| 101 LAB | XBRL Taxonomy Extension Labels Linkbase Document   |       |      |            | Filed      |
| 101 PRE | XBRL Taxonomy Extension Presentation Linkbase Document   |       |      |            | Filed      |

† Indicates a management contract or any compensatory plan, contract or arrangement.

\* A request for confidentiality has been granted for certain portions of the indicated document. Confidential portions have been omitted and filed separately with the SEC as required by Rule 24b-2 promulgated under the Exchange Act.

\*\* Schedules (or similar attachments) have been omitted pursuant to Item 601(b)(2) of Regulation S-K. Applied DNA Sciences, Inc. agrees to furnish supplementally a copy of any such omitted schedule or attachment to the U.S. Securities and Exchange Commission upon request; provided, however, that Applied DNA Sciences, Inc. may request confidential treatment pursuant to Rule 24b-2 under the Exchange Act for any schedule or attachment so furnished.



**APPLIED DNA SCIENCES, INC.**

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Audit Committee of the Board of Directors and Shareholders of

Applied DNA Sciences, Inc.

We have audited the accompanying consolidated balance sheets of Applied DNA Sciences, Inc. (the “Company”) as of September 30, 2015 and 2014, and the related consolidated statements of operations, stockholders’ equity and cash flows for the years then ended. These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Applied DNA Sciences, Inc., as of September 30, 2015 and 2014, and the consolidated results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

We also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company’s internal control over financial reporting as of September 30, 2014, based on the criteria in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 1992 and our report dated December 15, 2014 expressed an unqualified opinion on the effectiveness of the Company’s internal controls over financial reporting.

Marcum llp

/s/ Marcum llp

Marcum llp

Melville, NY

December 14, 2015

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**APPLIED DNA SCIENCES, INC.****CONSOLIDATED BALANCE SHEETS****SEPTEMBER 30, 2015 AND 2014**

|   | September 30,<br>2015 | 2014        |
|---|-----------------------|-------------|
| <b>ASSETS</b>   |                       |             |
| Current assets:   |                       |             |
| Cash and cash equivalents   | \$7,312,184           | \$1,393,132 |
| Accounts receivable, net of allowance of \$7,140 and \$9,634 at September 30, 2015 and 2014, respectively                             | 3,929,517             | 834,818     |
| Prepaid expenses and other current assets   | 293,351               | 135,365     |
| Total current assets  | 11,535,052            | 2,363,315   |
| Property, plant and equipment-net of accumulated depreciation of \$852,867 and \$759,087 at September 30, 2015 and 2014, respectively | 572,107               | 576,128     |
| Other assets:   |                       |             |
| Long term accounts receivables  | 1,500,000             | -           |
| Deposits  | 62,988                | 57,638      |
| Deferred offering costs   | -                     | 181,104     |
| Goodwill  | 285,386               | -           |
| Intangible assets, net of accumulated amortization of \$238,368 and \$141,478, as of September 30, 2015 and 2014, respectively        | 1,598,779             | 327,872     |
| Total Assets  | \$15,554,312          | \$3,506,057 |
| <b>LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)</b>   |                       |             |
| Current liabilities:  |                       |             |
| Accounts payable and accrued liabilities, including related party accrued interest of \$6,597 at September 30, 2014                   | \$2,385,006           | \$1,494,759 |
| Promissory notes payable, including \$1,000,000 with a related party at September 30, 2014  | -                     | 1,800,000   |
| Deferred revenue  | 282,050               | 583,362     |
| Total current liabilities   | 2,667,056             | 3,878,121   |
| Long term accounts payable  | 320,400               | -           |
| Warrant liability   | -                     | 1,096,412   |
| Total liabilities   | 2,987,456             | 4,974,533   |



## Commitments and contingencies

## Stockholders' Equity (Deficit)

|   |               |               |
|---|---------------|---------------|
| Preferred stock, par value \$0.001 per share; 10,000,000 shares authorized; -0- shares issued and outstanding as of September 30, 2015 and 2014   | -             | -             |
| Series A Preferred stock, par value \$0.001 per share; 10,000,000 shares authorized; -0- issued and outstanding as of September 30, 2015 and 2014   | -             | -             |
| Series B Preferred stock, par value \$0.001 per share; 10,000,000 shares authorized; -0- issued and outstanding as of September 30, 2015 and 2014   | -             | -             |
| Common stock, par value \$0.001 per share; 500,000,000 and 1,350,000,000 shares authorized; 21,504,578 and 13,935,954 shares issued and outstanding as of September 30, 2015 and 2014, respectively | 21,505        | 13,937        |
| Additional paid in capital  | 224,186,760   | 198,277,859   |
| Accumulated deficit   | (211,641,409) | (199,760,272) |
| Total stockholders' equity (deficit)  | 12,566,856    | (1,468,476 )  |
| Total Liabilities and Stockholders' Equity (Deficit)  | \$15,554,312  | \$3,506,057   |

See the accompanying notes to the consolidated financial statements

**APPLIED DNA SCIENCES, INC.****CONSOLIDATED STATEMENTS OF OPERATIONS****YEARS ENDED SEPTEMBER 30, 2015 AND 2014**

|   | 2015           | 2014           |
|---|----------------|----------------|
| Revenues  | \$9,008,499    | \$2,721,224    |
| Operating expenses:   |                |                |
| Selling, general and administrative   | 14,736,451     | 13,249,753     |
| Research and development  | 1,635,381      | 1,300,750      |
| Depreciation and amortization   | 490,641        | 442,262        |
| Total operating expenses  | 16,862,473     | 14,992,765     |
| LOSS FROM OPERATIONS  | (7,853,974 )   | (12,271,541)   |
| Other (expense) income:   |                |                |
| Interest (expense) income, net (including related party interest of \$31,875 and \$11,875 for the fiscal years ended September 30, 2015 and 2014, respectively) | (23,468 )      | (11,029 )      |
| Other (expense) income, net   | (28,313 )      | 123,914        |
| Loss on conversion of Promissory notes  | (980,842 )     | -              |
| Loss on change in fair value of warrant liability   | (2,994,540 )   | (908,005 )     |
| Loss before provision for income taxes  | (11,881,137)   | (13,066,661)   |
| Provision for income taxes  | -              | -              |
| NET LOSS  | \$(11,881,137) | \$(13,066,661) |
| Net loss per share-basic and diluted  | \$(0.63 )      | \$(0.97 )      |
| Weighted average shares outstanding-basic and diluted   | 18,938,283     | 13,515,518     |

See the accompanying notes to the consolidated financial statements

## APPLIED DNA SCIENCES, INC.

## CONSOLIDATED STATEMENTS OF STOCKHOLDERS' (DEFICIT) EQUITY

## YEARS ENDED SEPTEMBER 30, 2015 and 2014

|  | Preferred<br>Shares | Preferred<br>Stock<br>Amount | Common<br>Shares | Common<br>Stock<br>Amount | Additional<br>Paid in<br>Capital | Accumulated<br>Deficit | Total          |
|--|---------------------|------------------------------|------------------|---------------------------|----------------------------------|------------------------|----------------|
| Balance, October 1, 2013   | —                   | —                            | 13,108,783       | \$ 13,109                 | \$ 191,296,539                   | \$(186,693,611)        | \$ 4,616,037   |
| Reclassification of warrants<br>upon exercise  | —                   | —                            | —                | —                         | 2,455,042                        | —                      | 2,455,042      |
| Exercise of warrants<br>cashlessly   | —                   | —                            | 326,164          | 326                       | (326 )                           | —                      | —              |
| Common stock issued for<br>settlement of consulting<br>services                              | —                   | —                            | 41,667           | 42                        | 337,459                          | —                      | 337,501        |
| Shares issued in private<br>placement  | —                   | —                            | 313,757          | 314                       | 2,155,950                        | —                      | 2,156,264      |
| Exercise of options<br>cashlessly  | —                   | —                            | 145,583          | 146                       | (146 )                           | —                      | —              |
| Stock based compensation<br>expense  | —                   | —                            | —                | —                         | 2,033,341                        | —                      | 2,033,341      |
| Net loss   | —                   | —                            | —                | —                         | —                                | (13,066,661 )          | (13,066,661)   |
| Balance, September 30, 2014  | —                   | —                            | 13,935,954       | \$ 13,937                 | \$ 198,277,859                   | \$(199,760,272)        | \$(1,468,476 ) |
| Other  | —                   | —                            | 6,440            | 6                         | (6 )                             | —                      | —              |
| Exercise of warrants and<br>options cashlessly   | —                   | —                            | 4,376            | 4                         | (4 )                             | —                      | —              |
| Common stock issued for<br>consulting services   | —                   | —                            | 40,500           | 41                        | 136,240                          | —                      | 136,281        |
| Shares issued in underwritten<br>public offerings, net of<br>offering costs                  | —                   | —                            | 6,950,000        | 6,950                     | 18,926,364                       | —                      | 18,933,314     |
| Shares and warrants issued<br>upon conversion of<br>promissory notes and<br>accrued interest | —                   | —                            | 567,308          | 567                       | 2,824,024                        | —                      | 2,824,591      |
| Stock based compensation<br>expense  | —                   | —                            | —                | —                         | 4,022,283                        | —                      | 4,022,283      |
| Net loss   | —                   | —                            | —                | —                         | —                                | (11,881,137 )          | (11,881,137)   |
| Balance, September 30, 2015  | —                   | \$ —                         | 21,504,578       | \$ 21,505                 | \$ 224,186,760                   | \$(211,641,409)        | \$ 12,566,856  |

See the accompanying notes to the consolidated financial statements

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**APPLIED DNA SCIENCES, INC.****CONSOLIDATED STATEMENT OF CASH FLOWS****YEARS ENDED SEPTEMBER 30, 2015 AND 2014**

|   | 2015           | 2014           |
|---|----------------|----------------|
| Cash flows from operating activities:                                       |                |                |
| Net loss  | \$(11,881,137) | \$(13,066,661) |
| Adjustments to reconcile net loss to net cash used in operating activities: |                |                |
| Depreciation and amortization   | 490,641        | 442,262        |
| Stock based compensation expense  | 4,022,283      | 2,033,341      |
| Change in fair value of warrant liability                                   | 2,994,540      | 908,005        |
| Loss on conversion of promissory notes                                      | 980,842        | -              |
| Common stock issued for consulting services                                 | 136,281        | 337,501        |
| Bad debt expense  | 34,996         | 19,755         |
| Change in operating assets and liabilities:                                 |                |                |
| Accounts receivable   | (4,635,445 )   | (181,935 )     |
| Prepaid expenses, other current assets and deposits                         | (78,587 )      | 32,352         |
| Inventory   | 30,000         | -              |
| Accounts payable and accrued liabilities                                    | 1,241,052      | 527,783        |
| Deferred revenue  | (301,312 )     | 434,859        |
| Net cash used in operating activities                                       | (6,965,846 )   | (8,512,738 )   |
| Cash flows used in investing activities:                                    |                |                |
| Purchase of assets under asset purchase agreement                           | (1,500,000 )   | -              |
| Purchase of intangible assets   | (286,953 )     | -              |
| Purchase of property, plant and equipment                                   | (351,615 )     | (229,591 )     |
| Net cash used in investing activities                                       | (2,138,568 )   | (229,591 )     |
| Cash flows from financing activities:                                       |                |                |
| Net proceeds from sale of common stock and warrants                         | 19,114,418     | 2,156,264      |
| Proceeds from promissory notes, including \$1,000,000 from a related party  | -              | 1,800,000      |
| Deferred offering costs   | -              | (181,104 )     |
| Purchase and cancellation of previously issued warrants                     | (4,090,952 )   | -              |
| Net cash provided by financing activities                                   | 15,023,466     | 3,775,160      |
| Net increase (decrease) in cash and cash equivalents                        | 5,919,052      | (4,967,169 )   |
| Cash and cash equivalents at beginning of year                              | 1,393,132      | 6,360,301      |
| Cash and cash equivalents at end of year                                    | \$7,312,184    | \$1,393,132    |
| Supplemental Disclosures of Cash Flow Information:                          |                |                |
| Cash paid during period for interest  | \$-            | \$-            |
| Cash paid during period for income taxes                                    | \$-            | \$-            |

Non-cash investing and financing transactions:

|   |             |             |
|---|-------------|-------------|
| Reclassification of warrants from liability to equity upon exercise of warrants                   | \$-         | \$2,455,042 |
| Common stock and warrants issued upon conversion of promissory notes payable and accrued interest | \$1,843,750 | \$-         |
| Property, plant and equipment acquired, and included in accounts payable                          | \$1,500     | \$-         |
| Intangible assets acquired, and included in accounts payable                                      | \$11,845    | \$-         |
| Common stock issued for cashless exercise of options and warrants                                 | \$4         | \$472       |
| Reclassification of deferred offering costs to additional paid in capital                         | \$181,104   | \$-         |

See the accompanying notes to the consolidated financial statements

**APPLIED DNA SCIENCES, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**SEPTEMBER 30, 2015**

**NOTE A – LIQUIDITY AND MANAGEMENT’S PLAN**

The Company has recurring net losses, which have resulted in an accumulated deficit of \$211,641,409 as of September 30, 2015. The Company incurred a net loss of \$11,881,137 and generated negative operating cash flow of \$6,965,846 for the fiscal year ended September 30, 2015. At September 30, 2015 the Company had cash and cash equivalents of \$7,312,184 and working capital of \$8,867,996. The Company’s current capital resources include cash and cash equivalents, accounts receivable and prepaid expenses and other current assets. Historically, the Company has financed its operations principally from the sale of equity securities. As discussed in Note I, during the fiscal year ended September 30, 2015, the Company closed on two underwritten public offerings of common stock and warrants for gross proceeds of approximately \$21,569,600, before deducting underwriting discounts and offering expenses. The Company utilized approximately \$4,091,000 of the gross proceeds to repurchase the remaining Series B Warrants from Crede, as discussed in Note G.

In addition, on November 23, 2015, the Company closed a registered direct public offering of common stock and a concurrent private placement of warrants to purchase common stock, for aggregate gross proceeds of approximately \$8,750,000, before deducting placement agent fees and offering expenses (See Note I).

The Company expects to finance operations primarily through cash flows provided by operating activities provided that it will achieve a sufficient level of future revenues. The Company estimates that its cash and cash equivalents are sufficient to fund operations for the next twelve months.

The Company will require additional funds to complete the continued development of its products, product manufacturing, and to fund expected additional losses from operations, until revenues are sufficient to cover the Company’s operating expenses. If revenues are not sufficient to cover the Company’s operating expenses, and if the Company is not successful in obtaining the necessary additional financing, it will most likely be forced to reduce operations.

**NOTE B – SUMMARY OF ACCOUNTING POLICIES**

Business and Basis of Presentation

On September 16, 2002, the Company was incorporated under the laws of the State of Nevada. Effective December 17, 2008, the Company reincorporated from the State of Nevada to the State of Delaware. The Company is principally devoted to developing DNA embedded biotechnology security solutions in the United States and Europe. To date, the Company has had a limited operating history, and as a result, its operations have produced limited recurring revenues from its services and products; it has incurred expenses and has sustained losses. Consequently, its operations are subject to all the risks inherent in the establishment of a biotechnology company.

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries, APDN (B.V.I.) Inc. and Applied DNA Sciences Europe Limited, which currently have no operations. Significant inter-company transactions and balances have been eliminated in consolidation.

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 of its common stock, par value \$.001 per share, and a decrease in its authorized common stock, from 1,350,000,000 to 500,000,000 shares, effective October 29, 2014. All warrant, option, share, and per share information in the consolidated financial statements gives retroactive effect to a one-for-60 reverse stock split that was effected on October 29, 2014.



**APPLIED DNA SCIENCES, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**SEPTEMBER 30, 2015**

**NOTE B – SUMMARY OF ACCOUNTING POLICIES, continued**

Use of Estimates

The preparation of the financial statements in conformity with Accounting Principles Generally Accepted in the U.S. (“GAAP”) requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Management bases its estimates on historical experience and on various assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. The most complex and subjective estimates include recoverability of long-lived assets, including the values assigned to goodwill, intangible assets and property, plant and equipment, fair value calculations for warrants and stock based compensation, contingencies and allowance for doubtful accounts. Management reviews its estimates on a regular basis and the effects of any material revisions are reflected in the consolidated financial statements in the period they are deemed necessary. Accordingly, actual results could differ from those estimates.

Revenue Recognition

The Company recognizes 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. The Company defers any revenue for which the product has not been delivered, service has not been provided, or is subject to refund until such time that the Company and the customer jointly determine that the product has been delivered, the service has been provided, or no refund will be required. At September 30, 2015 and 2014, the Company recorded deferred revenue of \$282,050 and \$583,362, 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 the Company's development efforts on specific projects, is recognized as milestones are achieved as per the contract. The Company recognized revenue of approximately \$2,792,555 and \$156,452, from these contract awards during the fiscal years ended September 30, 2015 and 2014, respectively.

The Company has a mutual license agreement with Divatex Home Fashion, Inc. ("Divatex"), a supplier of home textiles, to commercialize supply-chain-DNA-verified cotton product. Divatex is responsible for marketing, while the Company licenses its patented SigNature T DNA technology for application. The Company invoices and receives the tagging fee from merchants and subsequently pays to Divatex its share of the tagging fee on a quarterly basis, based on when payments are received by the Company. Both the Company and Divatex are entitled to be reimbursed for its respective agreed costs and the balance of the tagging fees received are divided in accordance with the mutual license agreement.

In addition, in June 2015, the Company signed a memorandum of understanding ("MOU") with Louis Dreyfus Commodities to provide secure logistic supply chain support for the tagging and authentication of cotton fibers with SigNature T DNA. During the fiscal year ended September 30, 2015, the Company shipped SigNature T DNA to tag 100 million pounds of cotton.

The Company recognizes the revenue under its cotton customer contracts when the product has been shipped, as there is no right of return under these arrangements. The Company has evaluated the other indicators of gross and net revenue recognition, including whether or not the Company is the primary obligor and if it has general inventory risk. The Company does not have any general inventory risk and is not the primary obligor as it relates to the marketing portion of the tagging fee. The Company has carefully evaluated all of the key gross and net revenue recognition indicators and have concluded that its circumstances at it relates to Divatex's portion of the tagging fee is more consistent with those key indicators that support net revenue reporting.

The nature of the MOU described above includes extended payment terms that will result in a longer collection period and slower cash inflows. As a result, approximately \$1,500,000 is included in long-term accounts receivable for the revenue recognized during the fiscal year ended September 30, 2015.

#### Cash Equivalents

For the purpose of the accompanying consolidated financial statements, all highly liquid investments with a maturity of three months or less are considered to be cash equivalents.

#### Accounts Receivable

The Company provides an allowance for doubtful accounts equal to the estimated uncollectible amounts. The Company's estimate is based on historical collection experience and a review of the current status of trade accounts receivable. It is reasonably possible that the Company's estimate of the allowance for doubtful accounts will change.

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. As the Company increases sales to its cotton customers, which have longer payment terms on certain contracts, its collection cycle may increase in future periods. The Company classifies receivable amounts as current or long-term based on expected payment and records long-term accounts receivable when the collection period is expected to be greater than one year.

**APPLIED DNA SCIENCES, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**SEPTEMBER 30, 2015**

**NOTE B – SUMMARY OF ACCOUNTING POLICIES, continued**

Accounts Receivable, continued

At September 30, 2015 and 2014, the Company has an allowance for doubtful accounts of \$7,140 and \$9,634, respectively. The Company writes-off receivables that are deemed uncollectible.

Deferred offering costs

Deferred offering costs consist of fees paid in relation to legal, accounting, regulatory and printing work completed in preparation of equity offerings. Deferred offering costs will be charged against the proceeds from equity offerings. At September 30, 2014, deferred offering costs were \$181,104 and were reclassified to equity upon the closing of the November 20, 2014 public offering (see Note I).

Income Taxes

The Company accounts for income taxes in accordance with ASC 740, Income Taxes (“ASC 740-10”) which requires the recognition of deferred tax liabilities and assets for the expected future tax consequences of events that have been included in the financial statement or tax returns. Under this method, deferred tax liabilities and assets are determined based on the difference between financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. Temporary differences between taxable income reported for financial reporting purposes and income tax purposes include, but not limited to, accounting for intangibles, warrants, equity based compensation and depreciation and amortization. The Company evaluates the recoverability of deferred tax assets and establishes a valuation allowance when it is more likely than not that some portion or all of the deferred tax asset will not be realized. During the fiscal years ended September 30, 2015 and 2014, the Company incurred losses from operations. Based upon these results and the trends in the Company’s performance projected for fiscal year 2016, it is more likely than not that the Company will not realize any benefit

from the deferred tax assets recorded by the Company in previous periods. Management makes judgments as to the interpretation of tax laws that might be challenged upon an audit and cause changes to previous estimates of tax liability. In management's opinion, adequate provisions for income taxes have been made for all years. If actual taxable income by tax jurisdiction varies from estimates, additional allowances or reversals of reserves may be necessary. The Company has identified its federal tax return and its state tax return in New York as "major" tax jurisdictions. Based on the Company's evaluation, it has been concluded that there are no significant uncertain tax positions requiring recognition in the Company's consolidated financial statements.

The Company believes that its income tax positions and deductions will be sustained on audit and does not anticipate any adjustments that will result in a material change to its financial position. It is the Company's policy to accrue interest and penalties on unrecognized tax benefits as components of income tax provision. The Company did not have any accrued interest or penalties as of September 30, 2015 and 2014. Tax years 2011 through 2014 remain subject to future examination by the applicable taxing authorities.

**APPLIED DNA SCIENCES, INC.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****SEPTEMBER 30, 2015****NOTE B – SUMMARY OF ACCOUNTING POLICIES, continued**Property, Plant and Equipment

Property, plant and equipment are stated at cost and depreciated using the straight line method over their estimated useful lives. The estimated useful life for computer equipment, lab equipment and furniture is 3 to 5 years and leasehold improvements are amortized over the shorter of their useful life or the lease terms. Property plant and equipment consist of:

|                                    | September 30, |           |
|------------------------------------|---------------|-----------|
|                                    | 2015          | 2014      |
| Computer equipment                 | \$43,718      | \$77,182  |
| Lab equipment                      | 1,069,541     | 844,104   |
| Furniture                          | 44,592        | 164,997   |
| Leasehold improvements             | 267,123       | 248,932   |
| Total                              | 1,424,974     | 1,335,215 |
| Accumulated depreciation           | 852,867       | 759,087   |
| Property, plant and equipment, net | \$572,107     | \$576,128 |

Depreciation expense for the fiscal years ended September 30, 2015 and 2014 were \$393,750 and \$349,458, respectively.

Impairment of Long-Lived Assets

The Company evaluates its long lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Events relating to recoverability may include significant unfavorable changes in business conditions, recurring losses, or a forecasted inability to achieve break-even operating results over an extended period. The Company evaluates the recoverability of long-lived assets based upon forecasted

undiscounted cash flows. Should impairment in value be indicated, the carrying value of long-lived assets will be adjusted, based on estimates of future discounted cash flows resulting from the use and ultimate disposition of the asset. As of September 30, 2015, the Company concluded that its long-lived assets were not required to be tested for recoverability.

Net Loss per Share

The Company presents loss per share utilizing a dual presentation of basic and diluted loss per share. Basic loss per share includes no dilution and has been calculated based upon the weighted average number of common shares outstanding during the period. Dilutive common stock equivalents consist of shares issuable upon the exercise of the Company's stock options and warrants.

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**APPLIED DNA SCIENCES, INC.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****SEPTEMBER 30, 2015****NOTE B – SUMMARY OF ACCOUNTING POLICIES, continued**Net Loss per Share, continued

For the years ended September 30, 2015 and 2014, common stock equivalent shares are excluded from the computation of the diluted loss per share as their effect would be anti-dilutive.

Securities that could potentially dilute basic net income per share in the future that were not included in the computation of diluted net loss per share because to do so would have been antidilutive for the fiscal years ended September 30, 2015 and 2014 are as follows:

|                  | 2015      | 2014      |
|------------------|-----------|-----------|
| Warrants         | 6,027,654 | 945,166   |
| Employee options | 3,458,905 | 2,909,046 |
|                  | 9,486,559 | 3,854,212 |

Stock Based Compensation

The Company accounts for stock-based compensation for employees and directors in accordance with ASC 718, Compensation (“ASC 718”). ASC 718 requires all share-based payments to employees, including grants of employee stock options, to be recognized in the statement of operations based on their fair values. Under the provisions of ASC 718, stock-based compensation costs are measured at the grant date, based on the fair value of the award, and are recognized as expense over the employee’s requisite service period (generally the vesting period of the equity grant). The fair value of the Company’s common stock options are estimated using the Black Scholes option-pricing model with the following assumptions: expected volatility, dividend rate, risk free interest rate and the expected life. The Company expenses stock-based compensation by using the straight-line method. In accordance with ASC 718, excess tax benefits realized from the exercise of stock-based awards are classified in cash flows from financing activities. The future realization of the reserved deferred tax assets related to these tax benefits associated with the exercise of stock



options will result in a credit to additional paid in capital if the related tax deduction reduces taxes payable. The Company has elected the “with and without approach” regarding ordering of windfall tax benefits to determine whether the windfall tax benefit did reduce taxes payable in the current year. Under this approach, the windfall tax benefit would be recognized in additional paid-in-capital only if an incremental tax benefit is realized after considering all other benefits presently available.

The Company accounts for stock based compensation awards issued to non-employees for services, as prescribed by ASC 718-10, at either the fair value of the services rendered or the instruments issued in exchange for such services, whichever is more readily determinable, using the measurement date guidelines enumerated in ASC 505-50.

### Concentrations

Financial instruments and related items, which potentially subject the Company to concentrations of credit risk, consist primarily of cash, cash equivalents and trade receivables. The Company places its cash and temporary cash investments with high credit quality institutions. At times, such investments may be in excess of the FDIC insurance limit.

The Company’s revenues earned from sale of products and services for the fiscal year ended September 30, 2015 included an aggregate of 79% from two customers of the Company’s total revenues. These two customers accounted for approximately 90% of the Company’s total accounts receivable at September 30, 2015. No customers represented greater than 10% of the Company’s total revenues for the fiscal year ended September 30, 2014.

**APPLIED DNA SCIENCES, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**SEPTEMBER 30, 2015**

**NOTE B – SUMMARY OF ACCOUNTING POLICIES, continued**

Research and Development

The Company accounts for research and development costs in accordance with the ASC 730, Research and Development (“ASC 730”). Under ASC 730, all research and development costs must be charged to expense as incurred. Accordingly, internal research and development costs are expensed as incurred. Third-party research and development costs are expensed when the contracted work has been performed or as milestone results have been achieved. Company-sponsored research and development costs related to both present and future products are expensed in the period incurred. During the fiscal years ended September 30, 2015 and 2014, the Company incurred research and development expenses of \$1,635,381 and \$1,300,750, respectively.

Advertising

The Company follows the policy of charging the costs of advertising to expense as incurred. The Company charged to operations \$158,373 and \$99,128, as advertising costs for the fiscal years ended September 30, 2015 and 2014, respectively.

Goodwill and Other Intangible Assets

The Company amortizes its intangible assets using the straight-line method over their estimated period of benefit. All of the Company’s intangible assets, except for goodwill are subject to amortization.

Goodwill and other intangible assets arise as a result of business acquisitions. Goodwill consists of the excess of the cost of the acquisitions over the tangible and intangible assets acquired and liabilities assumed.

The Company evaluates goodwill for impairment at least annually. The Company also reviews its goodwill and other intangible assets for impairment whenever events or changes in circumstances indicate that it is more likely than not their carrying amount may exceed their implied fair value. The Company quantitatively determines whether, more likely than not, the fair value exceeds the carrying amount of a reporting unit. There are numerous assumptions and estimates underlying the quantitative assessments including future earnings, long-term strategies, and the Company's annual planning and forecasts. If these planned initiatives do not accomplish the targeted objectives, the assumptions and estimates underlying the quantitative assessments could be adversely affected and have a material effect upon the Company's financial condition and results of operations. As of September 30, 2015 and 2014 goodwill and other intangible impairment assessments indicated that there was no impairment.

### Internally Developed Software

Internally developed software products, consist of capitalized costs associated with the development of computer software to be sold, leased or otherwise marketed. Software development costs associated with new products are expensed as incurred until technological feasibility, as defined in FASB ASC Topic 985-20, has been established. Costs incurred thereafter are capitalized until the product is made generally available. The stage during the Company's development process for a new product or new release at which technological feasibility requirements are established affects the amount of costs capitalized. Annual amortization of internally developed software products is the greater of the amount computed using the ratio that current gross revenues for a product bear to the total of current and anticipated future gross revenues for that product or the straight-line method over the remaining estimated economic life of the software product, generally estimated to be 5 years from the date the product became available for general release to customers. The Company generally recognizes amortization expense for capitalized software costs using the straight-line method. Internally developed software products are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable.

### 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.

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**APPLIED DNA SCIENCES, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**SEPTEMBER 30, 2015**

**NOTE B – SUMMARY OF ACCOUNTING POLICIES, continued**

Fair Value of Financial Instruments, continued

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.

The Company utilizes observable market inputs (quoted market prices) when measuring fair value whenever possible.

*Level 3 Measurements:*

Warrant Liability: Estimated using the Binomial Lattice option valuation model. Significant observable and unobservable inputs include stock price, exercise price, annual risk free rate, term, and expected volatility. An increase or decrease in these inputs could significantly increase or decrease the fair value of the warrant. See Notes G and J.

For fair value measurements categorized within Level 3 of the fair value hierarchy, the Company's accounting and finance department, who report 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 the Company's accounting and finance department and are approved by the Chief Financial Officer.

Recently Adopted Accounting Principles

In November 2015, the FASB issued ASU 2015-17, *Balance Sheet Classification of Deferred Taxes*. This update requires an entity to classify deferred tax liabilities and assets as noncurrent within a classified statement of financial position. ASU 2015-17 is effective for annual and interim reporting periods beginning after December 15, 2016. This update may be applied either prospectively to all deferred tax liabilities and assets or retrospectively to all periods presented. Early application is permitted as of the beginning of the interim or annual reporting period. The Company is currently evaluating the impact of the adoption of this pronouncement on its balance sheet; although it does not expect it to have a significant impact.

In August 2014, the FASB issued Accounting Standards Update 2014-15, “Disclosure of Uncertainties about an Entity’s Ability to Continue as a Going Concern” (“ASU 2014-15”). ASU 2014-15 provides guidance on management’s responsibility in evaluating whether there is substantial doubt about a company’s ability to continue as a going concern and about related footnote disclosures. For each reporting period, management will be required to evaluate whether there are conditions or events that raise substantial doubt about a company’s ability to continue as a going concern within one year from the date the financial statements are issued. The amendments in ASU 2014-15 are effective for annual reporting periods ending after December 15, 2016, and for annual and interim periods thereafter. Early adoption is permitted. The Company will adopt the methodologies prescribed by ASU 2014-15 by the date required, and does not anticipate that the adoption of ASU 2014-15 will have a material effect on its consolidated financial position or results of operations.

In June 2014, the FASB issued Accounting Standards Update 2014-12, “Accounting for share-based payments when the terms of an award provide that a performance target could be achieved after the requisite service period,” (“ASU 2014-12”) which requires performance-based awards with a performance target that affects vesting and that could be achieved after an employee completes the requisite service period to be accounted for as a performance condition. If performance targets are clearly defined and it is probable that the performance condition will be achieved, stock-based expense should be recognized over the remaining requisite service period. This guidance will be effective for fiscal years (and interim reporting periods within those years) beginning after December 15, 2015. Early adoption is permitted. The Company is in the process of evaluating the provisions of the ASU and assessing the potential effect on the Company’s consolidated financial position or results of operations.

In May 2014, the FASB issued Accounting Standards Update 2014-09, “Revenue from Contracts with Customers,” (“ASU 2014-09”) which provides updated, comprehensive revenue recognition guidance for contracts with customers, including a new principles-based five step framework that eliminates much of the industry-specific guidance in current accounting literature. Under ASU 2014-09, revenue recognition is based on a core principle that companies recognize revenue in an amount consistent with the consideration it expects to be entitled to in exchange for the transfer of goods or services. The standards update also requires enhanced disclosures regarding the nature, amount, timing and uncertainty of recognized revenue. ASU 2015-14 was issued to extend the effective date of this guidance. This guidance will be effective for fiscal years (and interim reporting periods within those years) beginning after December 15, 2017. The Company is in the process of evaluating the provisions of the ASU and assessing the potential effect on the Company’s consolidated financial position or results of operations.

**APPLIED DNA SCIENCES, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**SEPTEMBER 30, 2015**

**NOTE C - ASSET PURCHASE AGREEMENT**

On September 11, 2015, the Company entered into an Asset Purchase Agreement (the “Asset Purchase Agreement”), with Vandalia Research, Inc. a West Virginia corporation (“Vandalia”), and Derek A. Gregg, Vandalia’s Chief Executive Officer and a director of Vandalia, providing for the purchase of substantially all the assets (“Assets”) of Vandalia. The Company completed the acquisition of such Assets on the same date (“Vandalia Asset Acquisition”). The Vandalia Assets relate to the business of producing specific, DNA sequences with the polymerase chain reaction production system known as Triathlon™, including machinery, equipment, inventory, registered and other intellectual property, including patents, trademarks, trade secrets, domain names, copyrights and rights to software, and customer contracts. The Assets also include Vandalia’s rights under a patent license agreement between Marshall University Research Corporation (“Marshall”) and Vandalia pursuant to which the Company will pay to Marshall a royalty of one percent (1%) of the net revenues received by it from the sale of the licensed product. The purchase price for the Assets was \$1,500,000, which amount was determined through arms-length negotiation. Of this amount, \$500,000 was placed in an escrow account for a period of nine months following the closing to satisfy Vandalia’s indemnification obligations with \$350,000 of this amount less the amount of any indemnification claims paid out of escrow to be released after sixty days. Vandalia and Derek Gregg agreed not to compete with the Company and not to solicit the Company’s employees or customers for a period of five years following the closing. Derek Gregg also entered into a consulting agreement with the Company for a term of twelve months subject to earlier termination by either party upon thirty days’ notice. Pursuant to the Asset Purchase Agreement, the Company entered into a month to month sublease with Vandalia of approximately 5,000 square feet at Vandalia’s office facility at an aggregate monthly rent of \$5,416. Purchase orders of \$237,000 were assigned by Vandalia to the Company. Prior to the Vandalia Asset Acquisition, the Company was a customer of Vandalia, paying approximately \$230,300 during the fiscal year ended September 30, 2014. The Company entered into this Asset Purchase Agreement in order to be able to increase its capacity for producing DNA, as well as to expand its business and product offerings.

The operating results of Vandalia from September 11, 2015 to September 30, 2015 are included in the accompanying consolidated statements of operations for the fiscal year ended September 30, 2015. The accompanying consolidated balance sheet at September 30, 2015 reflects the acquisition of Vandalia effective September 11, 2015.

**APPLIED DNA SCIENCES, INC.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****SEPTEMBER 30, 2015****NOTE C - ASSET PURCHASE AGREEMENT, continued**

The asset purchase agreement was accounted for using the acquisition method under ASC 805, Business Combinations, which requires the acquired assets to be recorded at fair values as of the acquisition date of September 11, 2015. The following table summarizes the purchase price and the values of assets acquired:

|                                 |              |
|---------------------------------|--------------|
| Allocation of Purchase Price:   | September    |
|                                 | 11, 2015     |
| Inventory                       | \$ 30,000    |
| Fixed assets                    | 36,614       |
| Security deposit                | 10,000       |
| Identifiable intangible assets: |              |
| Contract in place               | 69,000       |
| Intellectual property           | 448,000      |
| Customer relationships          | 621,000      |
| Goodwill                        | 285,386      |
| Fair value of assets acquired   | \$ 1,500,000 |

The goodwill acquired is the result of expected synergies as well as intangible assets that do not qualify for separation. During the fiscal year ended September 30, 2015, the Company expensed \$184,319 of acquisition-related legal costs. The costs are included in the line item Selling, General & Administrative costs in the accompanying consolidated statements of operations and are reflected in pro-forma earnings for the years ended September 30, 2015 and 2014 in the table below. The amounts of revenue and net income of Vandalia included in the Company's consolidated statements of operations for the fiscal year ended September 30, 2015 was \$175,000 and \$102,398, respectively. The goodwill of \$285,386 is fully deductible for tax purposes. The audits of the historical financial statements of Vandalia are currently still in process. The following unaudited supplemental pro forma information presents the Company's financial results as if the acquisition of Vandalia had occurred October 1, 2013:

|                    |               |
|--------------------|---------------|
| Fiscal year ended: |               |
| September          | September 30, |
| 30,                | 2014          |
| 2015               |               |



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|   |              |               |
|---|--------------|---------------|
| Revenue                                     | \$9,224,273  | \$3,063,647   |
| Net income (loss)                           | (12,064,887) | (13,102,344 ) |
| Basic and diluted earnings (loss) per share | \$(0.64 )    | \$(0.97 )     |

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**APPLIED DNA SCIENCES, INC.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****SEPTEMBER 30, 2015****NOTE D – INTANGIBLE ASSETS**

Intangible assets as of September 30, 2015 and 2014 are as follows:

|  | 2015        | 2014      |
|--|-------------|-----------|
| Internally developed software (5 year useful life) | \$298,797   | \$-       |
| Customer relationships (10 year useful life)       | 621,000     | -         |
| Intellectual property (5-15 years)                 | 917,350     | 469,350   |
|  | 1,837,147   | 469,350   |
| Less:  |             |           |
| Accumulated amortization                           | 238,368     | 141,478   |
| Intangible assets, net                             | \$1,598,779 | \$327,872 |

Total amortization expense charged to operations for the fiscal years ended September 30, 2015 and 2014 were \$96,891 and \$92,804, respectively.

The following table presents the estimated amortization expense of the intangible assets for each of the five succeeding years as of September 30, 2015:

|      | Amount    |
|------|-----------|
| 2016 | \$216,690 |
| 2017 | 246,570   |
| 2018 | 196,852   |
| 2019 | 151,726   |
| 2020 | 151,726   |

|            |              |
|------------|--------------|
| Thereafter | 635,215      |
| Total      | \$ 1,598,779 |

**NOTE E – ACCOUNTS PAYABLE AND ACCRUED LIABILITIES**

Accounts payable and accrued liabilities at September 30, 2015 and 2014 are as follows:

|                          | 2015        | 2014        |
|--------------------------|-------------|-------------|
| Accounts payable         | \$1,237,973 | \$1,059,623 |
| Accrued consulting fees  | -           | 102,500     |
| Accrued salaries payable | 1,002,743   | 245,761     |
| Accrued interest         | -           | 11,875      |
| Other accrued expenses   | 144,290     | 75,000      |
| Total                    | \$2,385,006 | \$1,494,759 |

**APPLIED DNA SCIENCES, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**SEPTEMBER 30, 2015**

**NOTE F – PROMISSORY NOTES PAYABLE**

On September 11, 2014, the Company 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, the Company’s 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 of 1933, as amended (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. Interest to be paid in shares was to be paid in shares of common stock equal to (i) the amount of interest payable, divided by (ii) the average of the closing prices for the five consecutive trading days immediately preceding the applicable interest date. The Notes were permitted to be 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 were to automatically convert 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 the Company does not survive, the Notes were to be 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 (\$3.24 for one share of common stock and \$0.01 for one warrant) (“combined price”), the aggregate public offering per share price of common stock and warrants issued in the Company’s underwritten public offering, which closed on November 20, 2014. The conversion of the Notes resulted in a loss on conversion of approximately \$981,000, which was recorded on the consolidated statement of operations for the fiscal year ended September 30, 2015. The loss was calculated as the difference between the carrying amount of the promissory note and accrued interest on the conversion date compared to the fair value of the common stock and warrants issued as settlement of the Notes.

Interest expense for these Notes was \$31,875 and \$11,875 for the fiscal years ended September 30, 2015 and 2014, respectively.

**NOTE G – WARRANT LIABILITY**

On December 16, 2013, Crede CG III, Ltd (“Crede”) effected the cashless exercise of 178,253 Series A Warrants and 116,667 Series B Warrants. At December 16, 2013 (date of exercise), the Company determined the fair value of the Warrants to be \$2,455,042 using the Binomial Lattice model with the following assumptions: fair value of the Company’s common stock \$10.80 per share; dividend yield 0%; expected term: 4.55 years; risk free interest rate: 1.55%; expected volatility of: 118.89%; and an exercise price of \$14.59. The change in fair value of the warrant liability on the day of exercise amounted to a loss of \$1,288,752 and was included in the other income (expense). Upon exercise, the fair value of the Series A Warrants and 116,667 of the Series B Warrants were reclassified to equity.

The Series A and Series B Warrants were classified as liabilities on the issuance date due to certain provisions contained in the warrant agreements, which may cause an adjustment to the conversion rate or the number of warrants outstanding.

The change in fair value of the warrant liability resulted in a loss of \$908,005 fiscal year ended September 30, 2014.

On October 28, 2014, the Company entered into a warrant repurchase option agreement with Crede, pursuant to which it had the option to purchase between 50% and 100% of Crede’s Series B Warrant (then 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, the Company exercised its option and repurchased 100% of Crede’s Series B Warrant for an aggregate purchase price of approximately \$4,091,000. The change in fair value of the warrant liability on the day of repurchase amounted to a loss of \$2,994,540 and was included in other income (expense) for the fiscal year ended September 30, 2015.

**APPLIED DNA SCIENCES, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**SEPTEMBER 30, 2015**

**NOTE H – RELATED PARTY TRANSACTIONS**

As discussed in Note F, on September 11, 2014, the Company issued and sold a promissory note in the aggregate principal amount of \$1,000,000 and bearing interest at a rate of 12.5% per annum to Dr. James A. Hayward, the Company's President, Chairman and Chief Executive Officer. On November 11, 2014, Dr. Hayward agreed to exchange for cancellation of his Note (including principal and accrued interest thereon) for 315,171 shares of common stock and warrants to purchase 315,171 shares of common stock, at a combined price of \$3.25, the aggregate public offering price of common stock and warrants issued in the Company's underwritten public offering which closed on November 20, 2014.

As discussed in Note I, the Company's Chief Executive Officer and an affiliated company of a member of the Company's board of directors participated in the Company's November 20, 2014 underwritten public offering.

As discussed in Note I, certain members of the Company's senior management team and the Board of Directors participated in the June 3, 2014 private placement.

**NOTE I – CAPITAL STOCK**

*Common Stock Transactions during and subsequent to the Fiscal Year Ended September 30, 2015:*

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 of its common stock, par value \$.001 per share, and a decrease in its authorized common stock, from 1,350,000,000 to 500,000,000 shares, effective October 29, 2014. All warrant, option, share, and per share information in the consolidated financial statements gives retroactive effect to the one-for-60 reverse stock split that was effected on October 29, 2014. In addition, the Company is authorized to issue 10,000,000 shares of preferred stock with a \$0.001 par value per share. As of September 30, 2015 and 2014, there were 21,504,578 and 13,935,954 shares of common stock issued and

outstanding, respectively.

On November 20, 2014, the Company closed its underwritten public offering of 2,800,000 shares of common stock and warrants to purchase up to an aggregate of 2,800,000 shares of common stock for gross proceeds of \$9.1 million before deducting underwriting discounts and offering expenses. The Company utilized \$4,091,000 of the gross proceeds to repurchase the remaining Series B Warrants from Crede, as discussed in Note E. The combined price for each share of common stock and one warrant was \$3.25. The warrants may be exercised for a period of five years and have an exercise price of \$3.50 per share. In connection with the offering, the Company granted to the underwriters a 45-day option to purchase up to 420,000 additional shares of common stock at \$3.24 per share and/or up to 420,000 additional warrants at \$0.01 per share to cover over-allotments, if any. The Company's Chief Executive Officer and an affiliated company of a member of the Company's board of directors participated in this underwritten public offering. The Company's common stock and warrants are listed on the Nasdaq Capital Market under the symbols "APDN" and "APDNW", respectively. On December 19, 2014, the Company closed on the underwriters' exercise of its over-allotment option of 416,850 warrants for gross proceeds of \$4,169 and on December 30, 2014, the Company closed on the underwriters' additional exercise of its over-allotment option of 52,000 shares of common stock for gross proceeds of \$168,480. The total number of common stock and warrants issued under this offering, including the exercise of the over-allotment option was 2,852,000 and 3,216,850, respectively. The gross proceeds to the Company was \$9.3 million and net proceeds after deducting underwriting discounts, offering expenses and the repurchase of the remaining Series B Warrants from Crede was approximately \$3.69 million.

In connection with the closing of this underwritten public offering, on November 20, 2014, the Company granted 128,800 warrants to purchase common stock to its underwriters as partial compensation. These warrants have an exercise price of \$3.73 (115% of the public offering price) and expire on November 14, 2019.

See Note F for the common stock and warrants issued in connection with the conversion of the promissory notes.

**APPLIED DNA SCIENCES, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**SEPTEMBER 30, 2015**

**NOTE I – CAPITAL STOCK, continued**

During the fiscal year ended September 30, 2015, the Company granted 40,500 shares of common stock to consultants for a total expense of approximately \$136,281 pursuant to the Company's 2005 Incentive Stock Plan.

On April 1, 2015, the Company closed its underwritten public offering of 4,011,000 shares of common stock and warrants to purchase up to an aggregate of 1,604,400 shares of common stock, at \$3.00 (\$2.99 for one share of common stock and \$0.01 for one warrant) ("combined offering price"), including 191,000 shares and 76,400 warrants sold pursuant to the partial exercise of the underwriters' over-allotment option. The warrants have a per share exercise price of \$3.50, are exercisable immediately, and expire on November 20, 2019. The gross proceeds to the Company from this offering, including the partial exercise of the over-allotment option but before deducting the underwriting discount and offering expenses, were \$12.0 million. In connection with the offering, the Company granted to the underwriters a 45-day option to purchase up to 573,000 additional shares of common stock and up to 229,200 additional warrants to cover over-allotments, if any. On April 30, 2015, the Company closed on the underwriters' exercise of its over-allotment option of 87,000 shares of common stock and 152,800 warrants for gross proceeds of \$263,950.

In connection with the closing of this underwritten public offering, as partial compensation, on April 1, 2015, the Company granted up to 163,720 warrants to purchase common stock to its underwriters. These warrants have an exercise price of \$3.44 (115% of the public offering price) and expire on March 27, 2020.

On November 23, 2015, the Company entered into a securities purchase agreement with certain institutional investors providing for the purchase and sale of 2,500,000 shares of common stock at a price of \$3.49 per share in a registered direct public offering. In a concurrent private placement, the Company sold warrants to purchase 1,250,000 shares of its common stock at a price of \$0.01 per warrant, with an exercise price of \$4.30 per share. The warrants will be exercisable beginning six months following the closing date of the private placement and will expire five years from the date on which they become exercisable. The gross proceeds to the Company from this registered direct offering and private placement before deducting the placement agent fees and offering expenses, is \$8.75 million.



In connection with the closing of the registered direct public offering and the private placement, as partial compensation, on November 25, 2015, the Company granted warrants to purchase 50,000 shares of common stock to its placement agent. These warrants have an exercise price of \$4.03 (115% of the public offering price), subject to adjustment as set forth therein, will be exercisable beginning six months following the closing date of the Private Placement and expire at 5:00 PM (Eastern Standard Time) on November 25, 2020.

*Common Stock Transactions during the Fiscal Year Ended September 30, 2014:*

On December 16, 2013, Crede effected the cashless exercise of 178,253 Series A Warrants and 116,667 Series B Warrants, and the Company thereupon issued to Crede an aggregate of 313,718 shares of its common stock (see Note G).

On December 20, 2013, 41,667 shares of the Company's common stock were issued in connection with a settlement resulting from the termination of a consulting agreement. The fair value of the common stock was determined using the Company's stock price on December 20, 2013. The total fair value of \$337,501 was charged to operations.

On February 11, 2014, 12,446 shares of the Company's common stock were issued in connection with the cashless exercise of 16,667 warrants to acquire the Company's Common Stock.

On June 3, 2014, the Company closed a private placement of its common stock and warrants to purchase common stock with a group of investors, including members of the Company's senior management team and the Board of Directors, pursuant to subscription agreements for gross proceeds of \$2,145,956 ("Private placement"). The Company issued and sold 312,257 shares of its 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 Company's 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 under the Securities Act.

**APPLIED DNA SCIENCES, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**SEPTEMBER 30, 2015**

**NOTE I – CAPITAL STOCK, continued**

On July 8, 2014, the Company closed on an additional subscription agreement under this private placement, with the same terms as disclosed above. The Company 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.

This Private placement triggered the anti-dilution provision of the remaining Crede Series B warrants, as the purchase price of the common stock and the exercise price of the Warrants issued with the Private placement were below the exercise price in effect for the Crede Series B warrants. The exercise price of the Crede Series B warrants was adjusted from \$14.59 to \$14.09 per share and the number of warrants increased from 373,529 to 386,618 as of June 30, 2014. The Crede Series B warrants were further diluted with the issuance on July 8, 2014 of common stock and warrants as the exercise price was further adjusted to \$14.06 and the number of warrants was increased to 387,621 (see Note G).

On August 19, 2014, 145,583 shares of the Company's common stock were issued in connection with the cashless exercise of 341,668 options to acquire the Company's common stock.

**APPLIED DNA SCIENCES, INC.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****SEPTEMBER 30, 2015****NOTE J – STOCK OPTIONS AND WARRANTS**Warrants

The following table summarizes the changes in warrants outstanding and the related prices for the shares of the Company's common stock issued to non-employees of the Company. These warrants were granted in lieu of cash compensation for services performed or financing expenses in connection with the sales of the Company's common stock.

Transactions involving warrants (see Note I) are summarized as follows:

|                             | Number of<br>Shares | Weighted<br>Average<br>Exercise Price<br>Per<br>Share |
|-----------------------------|---------------------|---|
| Balance at October 1, 2014  | 945,166             | \$ 9.59   |
| Granted                     | 5,833,878           | 3.50  |
| Exercised                   | (16,667 )           | (2.40 )   |
| Cancelled or expired        | (734,723 )          | (11.09 )  |
| Balance, September 30, 2015 | 6,027,654           | \$ 3.54   |

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**APPLIED DNA SCIENCES, INC.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****SEPTEMBER 30, 2015****NOTE J – STOCK OPTIONS AND WARRANTS, continued**Employee Stock Options

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 (the “Incentive 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. On January 21, 2015, the Board of Directors approved an amendment to the Incentive Plan, which was approved by shareholders on June 16, 2015. The amendment increases the number of shares of common stock that can be issued as stock awards and stock options thereunder to an aggregate of 8,333,333. The amendment also extends the Incentive Plan’s expiration date to January 25, 2025.

The Incentive 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, 2015, a total of 251,752 shares have been issued and options to purchase 4,152,446 shares have been granted under the Incentive Plan.

The following table summarizes the changes in options outstanding and the related prices for the shares of the Company’s common stock issued to employees of the Company under the Incentive Plan:

| Exercise Prices | Number Outstanding | Weighted Average Remaining Contractual Life (Years) | Weighted Average Exercise Price | Number Exercisable | Exercisable Weighted Average Exercise Price |
|-----------------|--------------------|---|---------------------------------|--------------------|---|
| \$ 2.59         | 41,667             | 4.50  | \$ 2.59                         | 41,667             | \$ 2.59                                     |
| \$ 2.66         | 4,584              | 4.58  | \$ 2.66                         | -                  | \$ -  |
| \$ 2.68         | 3,334              | 4.52  | \$ 2.68                         | -                  | \$ -  |

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|          |           |      |          |           |          |
|----------|-----------|------|----------|-----------|----------|
| \$ 2.69  | 83,334    | 4.14 | \$ 2.69  | 83,334    | \$ 2.69  |
| \$ 2.85  | 1,667     | 4.31 | \$ 2.85  | -         | \$ -     |
| \$ 2.86  | 784,008   | 8.25 | \$ 2.86  | 608,500   | \$ 2.86  |
| \$ 3.45  | 30,000    | 9.38 | \$ 3.45  | -         | \$ -     |
| \$ 3.48  | 2,500     | 9.95 | \$ 3.48  | -         | \$ -     |
| \$ 3.51  | 666,667   | 2.79 | \$ 3.51  | 666,667   | \$ 3.51  |
| \$ 3.60  | 333,334   | 4.75 | \$ 3.60  | 333,334   | \$ 3.60  |
| \$ 3.90  | 10,581    | 1.18 | \$ 3.90  | 10,581    | \$ 3.90  |
| \$ 4.08  | 79,500    | 1.81 | \$ 4.08  | 79,500    | \$ 4.08  |
| \$ 4.20  | 47,501    | 1.37 | \$ 4.20  | 47,085    | \$ 4.20  |
| \$ 5.31  | 120,484   | 2.28 | \$ 5.31  | 67,700    | \$ 5.31  |
| \$ 5.40  | 16,668    | 0.92 | \$ 5.40  | 16,668    | \$ 5.40  |
| \$ 5.82  | 946,300   | 3.05 | \$ 5.82  | 283,798   | \$ 5.82  |
| \$ 6.00  | 8,334     | 3.97 | \$ 6.00  | 8,334     | \$ 6.00  |
| \$ 6.60  | 123,338   | 3.16 | \$ 6.60  | 123,338   | \$ 6.60  |
| \$ 6.89  | 4,167     | 3.58 | \$ 6.89  | 1,042     | \$ 6.89  |
| \$ 6.96  | 4,167     | 3.16 | \$ 6.96  | 1,042     | \$ 6.96  |
| \$ 7.02  | 33,334    | 3.18 | \$ 7.02  | 8,334     | \$ 7.02  |
| \$ 8.16  | 35,111    | 3.48 | \$ 8.16  | 35,111    | \$ 8.16  |
| \$ 9.60  | 41,667    | 3.35 | \$ 9.60  | 41,667    | \$ 9.60  |
| \$ 10.79 | 34,991    | 2.56 | \$ 10.79 | 34,991    | \$ 10.79 |
| \$ 12.00 | 1,667     | 2.51 | \$ 12.00 | 834       | \$ 12.00 |
|          | 3,458,905 | 4.41 | \$ 4.42  | 2,493,527 | \$ 4.13  |

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**APPLIED DNA SCIENCES, INC.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****SEPTEMBER 30, 2015****NOTE J – STOCK OPTIONS AND WARRANTS, continued**

## Employee Stock Options, continued

Transactions involving stock options issued to employees are summarized as follows:

|                                   | Number of<br>Shares | Weighted Average<br>Exercise Price Per<br>Share | Aggregate<br>Intrinsic<br>Value | Weighted<br>Average<br>Contractual<br>Life<br>(years) |
|-----------------------------------|---------------------|---|---------------------------------|---|
| Outstanding at October 1, 2014    | 2,909,046           | \$ 4.74   |                                 |   |
| Granted                           | 952,594             | 2.85  |                                 |   |
| Exercised                         | (500 )              | 2.86  |                                 |   |
| Cancelled or expired              | (402,235 )          | 3.02  |                                 |   |
| Outstanding at September 30, 2015 | 3,458,905           | \$ 4.42   |                                 |   |
| Vested at September 30, 2015      | 2,493,527           | 4.13  | \$ 0.19                         | 4.41  |
| Non-vested at September 30, 2015  | 965,378             |   | \$ 0.12                         | 4.35  |

The aggregate intrinsic value for options exercised during the fiscal years ended September 30, 2015 and 2014 was \$308 and \$1,294,420, respectively.

For the fiscal year ended September 30, 2015, the Company issued 952,594 options to employees, consultants and non-employee board of director members. Included in these grants was 450,000 options granted to executives.

For the fiscal year ended September 30, 2014, the Company issued 1,229,717 options to employees, consultants and non-employee board of director members. Included in these grants was 962,503 options granted to executives.

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**APPLIED DNA SCIENCES, INC.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****SEPTEMBER 30, 2015****NOTE J – STOCK OPTIONS AND WARRANTS, continued**

## Employee Stock Options, continued

The fair value of options granted during the fiscal years ended September 30, 2015 and 2014 was determined using the Black Scholes Option Pricing Model. For the purposes of the valuation model, the Company used the simplified method for determining the granted options expected lives. The simplified method is used since the Company does not have adequate historical data to utilize in calculating the expected term of options. The fair value for options granted was calculated using the following weighted average assumptions:

|                |        |        |
|----------------|--------|--------|
|                | 2015   | 2014   |
| Stock price    | \$2.85 | \$6.11 |
| Exercise price | \$2.85 | \$6.12 |
| Expected term  | 5.12   | 3.62   |
| Dividend yield | -      | -      |
| Volatility     | 133 %  | 112 %  |
| Risk free rate | 1.7 %  | 0.97 % |

The Company recorded \$4,022,283 and \$2,033,341 (including stock option modifications) as stock compensation expense for fiscal years ended September 30, 2015 and 2014, respectively. As of September 30, 2015, unrecorded compensation cost related to non-vested awards was \$2,398,284, which is expected to be recognized over a weighted average period of approximately 2.03 years. The weighted average grant date fair value per share for options granted during the fiscal years ended September 30, 2015 and 2014 was \$2.49 and \$4.24, respectively.

On August 5, 2014 the Company modified the vesting term of 33,334 options for an employee. The Company recorded \$25,887 of stock compensation expense for the fiscal year ended September 30, 2014 in connection with this modification as the incremental difference between the fair value of the stock options immediately before and after the modifications.



On January 16, 2015 and February 15, 2015 the Company modified the vesting term and extended the term of options for two employees. The Company recorded approximately \$132,000 of stock compensation expense for the fiscal year ended September 30, 2015 in connection with these modifications as the incremental difference between the fair value of the stock options immediately before and after the modifications.

On June 30, 2015 the Company modified the term of options that were set to expire for two executive officers. The Company recorded approximately \$542,000 of stock compensation expense for the fiscal year ended September 30, 2015 in connection with this modification as the incremental difference between the fair value of the stock options immediately before and after the modifications.

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**APPLIED DNA SCIENCES, INC.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****SEPTEMBER 30, 2015****NOTE K – INCOME TAXES**

The income tax provision (benefit) for the fiscal years ended September 30, 2015 and 2014 consists of the following:

|                                | 2015         | 2014      |
|--------------------------------|--------------|-----------|
| Federal:                       |              |           |
| Current                        | \$ -         | -         |
| Deferred                       | 10,273,000   | 643,000   |
|                                | 10,273,000   | 643,000   |
| State and local:               |              |           |
| Current                        | -            | -         |
| Deferred                       | (195,000 )   | 13,000    |
|                                | (195,000 )   | 13,000    |
| Valuation allowance            | (10,078,000) | (656,000) |
| Income tax provision (benefit) | \$-          | -         |

The provision for income taxes differ from the amount of income tax determined by applying the applicable U.S statutory rate to losses before income tax expense for the years ended September 30, 2015 and 2014 as follows:

|   | 2015      | 2014     |
|---|-----------|----------|
| Statutory federal income tax rate   | 34.00 %   | 34.00 %  |
| Statutory state and local income tax rate (1%, as of September 30, 2015 and 2014), net of federal benefit | 1.64 %    | 0.66 %   |
| Stock based compensation  | (8.34 %)  | 0.00 %   |
| Other permanent differences   | (4.93 %)  | (0.05 %) |
| Effect of change in deferred tax rate   | 4.15 %    | 0.00 %   |
| Warrant liability   | (33.78 %) | (0.00 %) |
| Adjustment to depreciation and amortization   | (16.28 %) | 0.00 %   |
| Adjustment of prior years' NOLs   | (61.28 %) | 0.00 %   |

|                               |         |           |
|-------------------------------|---------|-----------|
| Change in valuation allowance | 84.82 % | (34.61 %) |
| Effective tax rate            | 0.00 %  | 0.00 %    |

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**APPLIED DNA SCIENCES, INC.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****SEPTEMBER 30, 2015****NOTE K – INCOME TAXES, continued**

Deferred income taxes result from temporary differences in the recognition of income and expenses for financial reporting purposes and for tax purposes. The tax effect of these temporary differences representing deferred tax asset and liabilities result principally from the following:

|                                    | September 30, |              |
|------------------------------------|---------------|--------------|
|                                    | 2015          | 2014         |
| Deferred tax assets (liabilities): |               |              |
| Stock based compensation           | \$5,738,000   | \$5,619,000  |
| Depreciation and amortization      | 35,000        | 1,733,000    |
| Impairment of intangibles          | -             | 40,000       |
| Amortization of debt discount      | 16,055,000    | 15,822,000   |
| Warrant liability                  | -             | 2,917,000    |
| Net operating loss carry forward   | 8,199,000     | 14,326,000   |
| Tax credits                        | 86,000        | -            |
| Other                              | 266,000       | -            |
| Less: valuation allowance          | (30,379,000)  | (40,457,000) |
| Net deferred tax asset             | \$-           | \$-          |

As of September 30, 2015, the Company has approximately \$23,581,000 of Federal and \$29,079,000 of State net operating loss “NOL” carryforwards available which begin to expire after 2022. Pursuant to Internal Revenue Code Section 382, the Company’s ability to utilize the NOLs is subject to certain limitations due to changes in stock ownership in prior years. The annual limitation ranges between \$786,000 and \$1,103,000 and any unused amounts can be carried forward to subsequent years.

The Company has provided a full valuation allowance against all of the net deferred tax assets based on management’s determination that it is more likely than not that the net deferred tax assets will not be realized in the future. The valuation allowance decreased by 10,078,000.

Based on a study of Section 382 of the Internal Revenue code conducted by the Company at September 30, 2015, deferred tax asset related to net operating loss carryforward is decreased by \$21,118,000 and the state NOL is decreased by \$20,796,000 at September 30, 2015.

The Company has Federal research and development credits of approximately \$86,000 that will expire after 2034. The Company also has state investment tax credits of \$17,000 that will expire after 2029.

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**APPLIED DNA SCIENCES, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**SEPTEMBER 30, 2015**

**NOTE L – COMMITMENTS AND CONTINGENCIES**

Operating leases

The Company leases office space under an operating lease in Stony Brook, New York for its corporate headquarters. 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. The base rent during the initial lease term is \$449,142 per annum. In addition to the office space, the Company also has 1,500 square feet of laboratory space. The term of the lease commenced on November 1, 2015 and expires on October 31, 2016. The Company also had an operating lease for a laboratory in Huddersfield, England, which is currently inactive and Calverton, New York. The Huddersfield lease was terminated effective July 31, 2015. The Calverton lease was from February 1, 2014 through October 31, 2014, with the option to renew for additional one year periods. The Calverton lease is currently on a month to month basis. As discussed in Note C, pursuant to the Asset Purchase Agreement, the Company entered into a month to month sublease with Vandalia of approximately 5,000 square feet at Vandalia's office facility at an aggregate monthly rent of \$5,416. Total rent expense for the years ended September 30, 2015 and 2014 were \$490,915 and \$505,520, respectively.

Future minimum rental payments (excluding real estate tax and maintenance costs) as of September 30, 2015 are as follows:

|       |           |
|-------|-----------|
| 2016  | \$346,178 |
| 2017  | 4,125     |
| Total | \$350,303 |

Employment and Consulting Agreements

*Employment agreements*

On July 11, 2011, the Company's Board of Directors approved the terms of employment for Dr. James A. Hayward, the Company's Chief Executive Officer ("CEO").

Dr. Hayward's employment agreement provides that Dr. Hayward will be the Company's CEO, and will continue to serve on the Company's 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. Pursuant to contract, Dr. Hayward's annual salary is \$350,000. The Board of Directors, acting in its discretion, may grant annual bonuses to Dr. Hayward. Dr. Hayward will be eligible for a special cash incentive 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. As a result of the Company's revenue exceeding \$9 million for the fiscal year ended September 30, 2015, Dr. Hayward earned a bonus of \$375,000 for the fiscal year ended September 30, 2015 and is included in accounts payable and accrued expenses in the consolidated balance sheet. Dr. Hayward will be entitled to certain benefits and perquisites and will be eligible to participate in retirement, welfare and incentive plans available to the Company's other employees.

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 greater of either (X) the annual bonus he would have received if employment had continued through the end of the year of termination or (Y) the prior year's bonus; 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 for 18 months post-termination; 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 on an annual basis and the salary reduction continued throughout fiscal 2015. This salary reduction is accrued and will be subject to repayment when and if, while Dr. Hayward remains continuously employed by the Company, 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. Effective January 1, 2015, Dr. Hayward's annual salary was voluntarily reduced by an additional \$50,000; however, this second reduction is not subject to repayment. Accordingly, his current annual base salary is \$250,000 (with an additional \$50,000 deferred subject to repayment under the circumstances described above).

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**APPLIED DNA SCIENCES, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**SEPTEMBER 30, 2015**

**NOTE L – COMMITMENTS AND CONTINGENCIES, continued**

Litigation

From time to time, the Company may become involved in various lawsuits and legal proceedings which arise in the ordinary course of business. When the Company is aware of a claim or potential claim, it assesses the likelihood of any loss or exposure. If it is probable that a loss will result and the amount of the loss can be reasonably estimated, the Company will record a liability for the loss. In addition to the estimated loss, the recorded liability includes probable and estimable legal costs associated with the claim or potential claim. Litigation is subject to inherent uncertainties, and an adverse result in these or other matters may arise from time to time that may harm the Company's business. There is no pending litigation involving the Company at this time.

**NOTE M – FAIR VALUE**

The carrying value of cash, accounts receivable, accounts payable and accrued expenses approximate estimated fair values because of their short maturities.

The carrying value of the warrant liability is determined using the Binomial Lattice model option pricing model as described in Note G. Certain assumptions used in the calculation of the warrants liability represent level-3 unobservable inputs. The Company did not have any assets or liabilities categorized as Level 1 or 2 as of September 30, 2015.

**APPLIED DNA SCIENCES, INC.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****SEPTEMBER 30, 2015****NOTE M – FAIR VALUE, continued**

The following table summarizes the activity of Level 3 inputs measured on a recurring basis:

Fair Value Measurements of Common Stock Warrants Using Significant Unobservable Inputs (Level 3)

**Fair Value Measurements of Derivative Warrant Liability Using Significant Unobservable Inputs (Level 3)**

|  | Year Ended September 30, |             |
|--|--------------------------|-------------|
|  | 2015                     | 2014        |
| Balance at October 1, 2014 and 2013                                  | \$1,096,412              | \$2,643,449 |
| Adjustment resulting from change in value recognized in earnings (a) | 2,994,540                | 908,005     |
| Reclassification of warrant upon repurchase                          | (4,090,952)              | -           |
| Reclassification to equity upon exercise                             | -                        | (2,455,042) |
| Balance at September 30,   | \$-                      | \$1,096,412 |

(a) *Adjustment resulting from change in fair value* is the amount of total gains or losses for the period attributable to the change in unrealized gains or losses relating to liabilities held at the reporting date and realized gains or losses at the date of exercise. The gain or loss is recorded in change in fair value of warrant liability in the accompanying consolidated statements of operations.