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

**FORM 10-K**

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

For the fiscal year ended September 30, 2011

☐ **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 **002-90539**

**Applied DNA Sciences, Inc.**
(Exact name of registrant as specified in its charter)

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

| **25 Health Sciences Drive, Suite 215 Stony Brook, New York** | **11790** | **(631) 444-6862** |
|---|---|---|
| (Address of principal executive offices) | (Zip Code) | (Registrant's telephone number, including area code) |

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

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 common stock held by non-affiliates of the Registrant, based upon the last sale price of the common stock quoted on the OTC Bulletin Board as of the last business day of the Registrant's most recently completed second fiscal quarter (March 31, 2011), was approximately $14.0 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, 2011 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, 2011, the Registrant had outstanding 513,233,108 shares of Common Stock, par value $0.001 per share.

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## PART I

### Forward-looking Information

This Annual Report on Form 10-K (including the section regarding Management's Discussion and Analysis of Financial Condition and Results of Operations) contains forward-looking statements including statements using terminology such as "can", "may", "believe", "designated to", "will", "expect", "plan", "anticipate", "estimate", "potential" or "continue", or the negative thereof or other comparable terminology regarding beliefs, plans, expectations or intentions regarding the future. You should read statements that contain these words carefully because they:

- discuss our future expectations;
- contain projections of our future results of operations or of our financial condition; and
- state other "forward-looking" information.

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

### ITEM 1. BUSINESS.

### Overview

We are a provider of botanical-DNA based security and authentication solutions that can help protect products, brands and intellectual property of companies, governments and consumers from theft, counterfeiting, fraud and diversion. SigNature® DNA, Cashield™, DNANet™, SmartDNA™ and BioMaterial Genotyping, our principal anti-counterfeiting and product authentication solutions, are used in numerous industries, including cash-in-transit (transport and storage of banknotes), homeland security, textiles and apparel, identity cards and other secure documents, law enforcement, pharmaceuticals, wine, and luxury consumer goods.

***SigNature DNA***. We use the DNA of plants to manufacture highly customized and encrypted botanical DNA markers, or SigNature DNA Markers, which we believe are virtually impossible to replicate. We have embedded SigNature DNA Markers into a range of our customers' products, including various inks, dyes, textile treatments, thermal ribbon, thread, varnishes and adhesives. These items can then be tested for the presence of SigNature DNA Markers through an instant field detection or a forensic level authentication. Our SigNature DNA solution provides a secure, accurate and cost-effective means for users to incorporate our SigNature DNA Markers in, and then quickly and reliably authenticate and identify, a broad range of items, such as recovered banknotes, branded textiles and apparel products, pharmaceuticals and cosmetic products, identity cards and other secure documents, digital media, artwork and collectibles and fine wine. Having the ability to reliably authenticate and identify counterfeit versions of such items enables companies and governments to detect, deter, interdict and prosecute counterfeiting enterprises and individuals.

***Cashield.*** Cashield is a family of cash degradation inks that permanently stain banknotes stolen from cash-handling or ATM systems. Cashield extends our offering beyond our prior singular product, AzSure®, to a family of security inks that include Red, Violet, Green, Teal, Indigo, and the original AzSure® Blue. Current degradation dyes suffer from a critical technical weakness, as the dyes may be removed by the use of solvents. We initiated the development of Cashield in response to demand for a more effective carrier for our SigNature DNA markers. Cashield has been certified for use in the European Union by the Laboratoire National de Métrologie et d'Essais (LNE) and passed all 47 individual dye penetration and wash-out-resistance tests. Additionally, a CViT study presented by the University of Leeds cited Cashield AzSure Blue ink as having improved performance versus staining inks from other suppliers. In this study, the AzSure blue ink was tested across a range of currencies, including British pounds, Euros, and U.S. dollars. The evaluation involved exposure to numerous industrial solvents. Final analysis of the results concluded that the AzSure blue ink was bound strongly in five seconds or less to a variety of banknotes, and could not be removed with any solvent.

***DNANet.*** We have recently developed DNANet tactical DNA products for law enforcement, in the form of DNA-marked sprays and liquids. These products, being marketed to global police forces were created to help link criminals to crimes. DNANet is a tactical forensic system providing unique DNA codes for covert operations that require absolute proof of authentication.

***SmartDNA***. SmartDNA is a unique and patented security system based on botanical DNA, a new and effective crime protection system for stores, warehouses, banks, pharmacies, ATMs and the protection of valuables. The system contains a water-based, non-toxic spray which may be triggered during a crime, marking the perpetrator and remaining on their person for weeks after the crime. Each SmartDNA product is designed to be unique to each store, warehouse or sting operation allowing the police and prosecutors to link criminals to the crimes.

***BioMaterial GenoTyping***. Our BioMaterial GenoTyping solution refers to the development of genetic assays to distinguish between varieties or strains of biomaterials, such as cotton, wool, tobacco, fermented beverages, natural drugs and foods, that contain their own source DNA. We have developed two proprietary genetic tests (FiberTyping™ and PimaTyping™) to track American Pima cotton from the field to finished garments. These genetic assays provide the textile industry with what we believe to be the first authentication tools that can be applied throughout the U.S. and worldwide textile industry from cotton growers, mills, wholesalers, distributors, manufacturers and retailers through trade groups and government agencies.

In 2009 we discontinued our BioActive Ingredients program, which we began in 2007. We developed BioActive Ingredients for personal care products, such as skin care products, based on the biofermentation expertise developed during the manufacturing of DNA for our SigNature DNA and BioMaterial Genotyping solutions, and we have decided to focus our business on these security and authentication solutions.

**Corporate History**

We are a Delaware corporation, which was initially formed in 1983 under the laws of the State of Florida as Datalink Systems, Inc. In 1998, we reincorporated in Nevada, and in 2002, we changed our name to our current name, Applied DNA Sciences, Inc. In December 2008, we completed our reincorporation 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 25 Health Sciences Drive, Suite 215, Stony Brook, New York 11790, and our telephone number is (631) 444-6370. We maintain a website at *www.adnas.com* where general information about us is available.

**Industry Background**

The Company is focusing its efforts on the cash-in-transit business and the general anti-counterfeiting industry.

*Cash-in-transit businesses* transport and store cash and ATM cassettes. In the U.K. alone, there is an estimated £500 billion being transported each year, or £1.4 billion per day. The nature of this business makes cash-in-transit an attractive target for criminals, and as a result the industry invests in excess of £100 million per year in security equipment and devices. Currently, a system of cash degradation, using a smoke or liquid dye to permanently mark and essentially destroy stolen cash, is used.

*Counterfeiting, product diversion, piracy, forgery, identity theft, and unauthorized intrusion into physical locations and databases* create significant and growing problems to companies in a wide range of industries as well as governments and individuals worldwide. The International Anticounterfeiting Coalition (IACC) reports that counterfeiting and piracy cost the U.S. economy between $200-$500 billion per year, or an estimated 750,000 American jobs, and pose a real threat to consumer health and safety. The IACC also estimates that the loss associated with counterfeiting has increased 10,000 percent in the past twenty years, to well over $600 billion globally. Additionally, the ICC (International Chamber of Commerce) in February 2011 issued an updated report on counterfeiting and piracy that states that the global economic and social impacts of counterfeiting and piracy will reach $1.7 trillion by 2015 and put 2.5 million legitimate jobs at risk each year.

According to IACC and ICC:

- The Food and Drug Administration estimates that counterfeit drugs account for 10% of all drugs sold in the United States.
- The Federal Aviation Administration estimates that 2% of the 26 million airline parts installed each year are counterfeit, which equals approximately 520,000 parts.
- Digitally pirated music, movies and software accounts for between $30 billion and $75 billion.
- In 2011, the Motor and Equipment Manufacturers Association (MEMA) stated that worldwide sales of counterfeit motor vehicle parts are estimated to reach $45 billion this year. Previously MEMA has cited safety violations due to counterfeit auto parts: brake linings made of compressed grass, sawdust or cardboard; transmission fluid made of cheap oil that is dyed; and oil filters that use rags for the filter element.

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 reports that the value of counterfeit identification and passports is currently $100 million. 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.

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. In some countries, counterfeit prescription drugs comprise as much as 70 percent of the drug supply and have been responsible for thousands of deaths in some of the world's most impoverished nations, according to the World Health Organization (WHO). Counterfeit pharmaceuticals are estimated to be a billion-dollar industry, though some estimate it to be much larger. The Center for Medicine in the Public Interest estimates that in 2010, activities related to counterfeit drugs generated $75 billion, based on information obtained from government organizations. This is expected to grow by 20 percent annually in the coming years. In 2010, 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. 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. The challenges presented by traditional counterfeiters have recently been supplemented by the many websites, from direct retailers to auction sites, that offer counterfeit prescription drugs online. As a result, the pharmaceutical industry and regulators are examining emerging anti-counterfeit technologies, including radio-frequency identification tags and electronic product codes, known as EPCs, to help stem the wave of counterfeit drugs and better track legitimate drugs from manufacturing through the supply chain.

The digital and recording media industry, including the segment that records computer software on compact discs, has long been a victim of piracy, or the production of illegal copies of genuine media or software, and the counterfeiting and distribution of imitation media or software. Compact discs, DVDs, videotapes, computer software and other digital and recording media that appears identical to genuine products are sold at substantial discounts by vendors at street and night markets, via mail order catalogs and on the internet at direct retail websites or at auction sites. In 2011, the Business Software Alliance ("BSA") reported that the rate of global software piracy was 42% percent in 2010, the second highest rate in the study's history The BSA also reported the commercial value of unlicensed software put into the market in 2010 totaled $59 billion,nearly doubling since 2003.

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.

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

**Our Offerings**

***SigNature DNA***

We believe our SigNature DNA offering is as broadly applicable, convenient and inexpensive as existing authentication systems, while highly resistant to reverse-engineering or replication, so that it can either be applied independently or supplement existing systems in order to allow for a forensic level of authentication of the sources of a broad range of items, such as artwork and collectibles, fine wine, consumer products, digital and recording media, pharmaceuticals, financial instruments, identity cards and official documents. Each SigNature DNA Marker is first designed and manufactured to be a highly customized and encrypted botanical DNA marker. The SigNature DNA Marker is then encapsulated and stabilized so that it is resistant to heat, organic solvents, chemicals and most importantly, ultraviolet, or UV radiation. Once it has been encapsulated, our SigNature DNA Embedment system can be used to embed the SigNature DNA Marker directly onto products or other items or into special inks, threads and other media, which in turn can be incorporated into packaging or products. Once it is embedded, our SigNature polymerase chain reaction (PCR) Kits can provide rapid forensic level authentication of specific SigNature DNA Markers.

We believe that the key characteristics and benefits of the SigNature DNA offering are as follows:

*We Believe Our SigNature DNA Markers Are Virtually Impossible to Copy*

In creating unique SigNature DNA Markers, we use DNA segments from one or more botanical sources, rearrange them into unique encrypted sequences, and then implement one or more layers of anti-counterfeit techniques. Because the portion of DNA in a SigNature DNA Marker used to identify the marker is so minute, it cannot be detected unless it is replicated billions of times over, or amplified. This amplification can only be achieved by applying matching strands of DNA, or a primer, and polymerase chain reaction (PCR) techniques to the SigNature DNA Marker. The sequence of the relevant DNA in a SigNature DNA Marker must be known in order to manufacture the primer for that DNA. As a result, we believe the effort required to find, amplify, select and clone the relevant DNA in a SigNature DNA Marker would involve such enormous effort and expense that SigNature DNA Markers are virtually impossible to copy without our proprietary systems.

*Simple and Rapid Authentication*

We offer rapid readers capable of instantly testing for the presence or absence of any of our SigNature DNA Markers. In addition, when a forensic level of authentication is necessary, we offer in-house forensic DNA authentication that will confirm authentication sequences in approximately 2 to 4 hours.

*Low Cost and High Accuracy*

The costs associated with the DNA required to manufacture our SigNature DNA Markers are not significant since the amount of DNA required for each marker is so minute (for instance, only 3-5 parts per million when incorporated in an ink). We manufacture the identifying segment of DNA to be used in a SigNature DNA Marker by cloning them inside microorganisms such as yeast or bacteria, which are highly productive and inexpensive to grow. As a result, SigNature DNA Markers are relatively inexpensive when compared to other anti-counterfeiting devices such as RFIDs, electronic product codes ("EPCs"), integrated circuit chips, and holograms. The probability of mistakenly identifying a SigNature DNA Marker is less than 1 in 1 trillion, so we believe our authentication systems are highly accurate, and in fact, our SigNature PCR Kits can authenticate to a forensic level.

*Easily Integrated with Other Anti-Counterfeit Technologies*

Our SigNature DNA Markers can be embedded onto RFID devices, banknote threads, labels, serial numbers, holograms, and other marking systems using inks, threads and other media. We believe that combined with other traditional methods, our SigNature DNA solution provides a significant deterrent against counterfeiting, product diversion, piracy, fraud and identity theft.

*Broad Applicability and Ingestible*

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

***Cashield***

Cashield is a family of cash degradation inks that permanently stain banknotes stolen from cash-handling or ATM systems. Cashield extends our offering beyond our prior singular product, AzSure®, to a family of security inks that include Red, Violet, Green, Teal, Indigo, and the original AzSure Blue. Current degradation dyes suffer from a critical technical weakness, as the dyes may be removed by the use of solvents. We initiated the development of Cashield in response to demand for a more effective carrier for our SigNature DNA markers. Cashield has been certified for use in the EU by the Laboratoire National de Métrologie et d'Essais (LNE) and passed all 47 individual dye penetration and wash-out-resistance tests. Additionally, a CViT study presented by the University of Leeds cited Cashield AzSure Blue ink as having improved performance versus staining inks from other suppliers. In this study, the AzSure blue ink was tested across a range of currencies, including British pounds, Euros, and U.S. dollars. The evaluation involved exposure to numerous industrial solvents. Final analysis of the results concluded that the AzSure blue ink was bound strongly in five seconds or less to a variety of banknotes, and could not be removed with any solvent.

***DNANet***

In 2010, we developed DNANet tactical DNA products for law enforcement, in the form of DNA-marked fixative sprays and liquids as well as transferable grease. These products, being marketed to global police forces were created to help link criminals to crimes. DNANet is a tactical forensic system providing unique DNA codes for covert operations that require absolute proof of authentication.

***SmartDNA***

Introduced in 2011, SmartDNA is a unique and patented security system based on botanical DNA, a new and effective crime protection system for stores, warehouses, banks, pharmacies, ATMs and the protection of valuables. The system contains a water-based, non-toxic spray which may be triggered during a crime, marking the perpetrator and remaining on their person for weeks after the crime. Each SmartDNA product is designed to be unique to each store, warehouse or sting operation allowing the police and prosecutors to link criminals to the crimes.

***BioMaterial Genotyping***

We believe our BioMaterial Genotyping solution offers a unique means for determining the authenticity of biomaterials, such as cotton, wool, tobacco, fermented beverages, natural drugs and foods. Just as a person's DNA specifies all of their unique qualities, biomaterials typically contain genomic DNA or fragments thereof that can be utilized to authenticate originality. We have initially developed two proprietary genetic-based assays and protocols to identify DNA markers that are endogenous (internal) to a particular product in order to differentiate between biological strains. In a process we call Fibertyping™, we are able to differentiate between Pima cotton (*G. barbadense* ) and upland cotton (*G. hirsutum* ). Our FiberTyping offering enables our customers and potential clients to cost-effectively give assurance to manufacturers, suppliers, distributors, retailers and end-users that their products are authentic, that they are made from the fibers and textiles as labeled. In a process we call Pimatyping™, we are able to differentiate between Pima cotton grown in different regions of the world. 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. Similar offerings are currently being developed for use in biomaterials other than cotton. Biomaterials can now be tracked from field to final purchase guaranteeing the authenticity of the item. As we are testing for innate genomic DNA, we believe these assays cannot be counterfeited.

We believe our BioMaterial Genotyping allows us to:

- Identify U.S. produced Pima cotton;
- Establish an authentication protocol for cotton and other biomaterials; and
- Deter counterfeits and protect the integrity of brands.

We believe our two genetic assays accurately distinguish between:

- Pima cotton (*G. barbadense*) and upland cotton (*G. hirsutum*) (cultivars in mature cotton fibers and in cotton fabrics (Fibertyping); and
- American Pima and Extra Long Staple (ELS) Pima cotton (Pimatyping),

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

***Discontinued BioActive Ingredients Program***

In 2009 we discontinued our BioActive Ingredients program, which we began in 2007. We developed BioActive Ingredients for personal care products, such as skin care products, based on the biofermentation expertise developed during the manufacturing of DNA for our SigNature DNA, Cashield, DNANet, SmartDNA and BioMaterial Genotyping solutions, and we have decided to focus our business on these security and authentication solutions.

**Our Strategy**

We have begun to generate revenues principally from sales of our SigNature DNA, Cashield, DNANet, SmartDNA and BioMaterial Genotyping offerings. Key aspects of our strategy include:

*Customize and Refine our Solutions to Meet Potential Customers' Needs*

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

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

We have also identified and are further examining opportunities to collaborate with companies and universities to develop a new line of detection technologies that will provide faster and more convenient ways to authenticate our SigNature DNA Markers.

*Target Potential High-Volume Markets*

We will continue to focus our efforts on target vertical markets that are characterized by a high level of vulnerability to counterfeiting, product diversion, piracy, fraud, identity theft, and unauthorized intrusion into physical locations and databases. Today our target markets include art and collectibles, cash-in-transit, fine wine, consumer products, homeland security, digital and recording media, law enforcement, pharmaceuticals, textile and apparel authentication and secure documents/homeland security. 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 and the United States and are targeting the following principal markets:

***Cash-in-Transit***

Cash-in-transit businesses transport and store bank notes and ATM cassettes. In the U.K. alone, there is an estimated £500 billion being transported each year, or £1.4 billion per day. The nature of this business makes cash-in-transit an attractive target for criminals, and as a result the industry invests in excess of £100 million per year in security equipment and devices. Currently, a system of cash degradation, using a smoke or liquid dye to permanently mark and essentially destroy stolen bank notes, is used. The UK boasts the highest levels of cash-in-transit crime in Europe.

We are able to incorporate our SigNature DNA Markers in cash degradation inks, including our Cashield degradation inks, that are used in the cash-in-transit industry. 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 products. We believe that our Cashield degradation inks have exhibited superior penetration, binding, fluorescence and wash resistant properties than other competing products.

***Textile and Apparel 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 international cotton trade. We believe that our SigNature DNA and BioMaterial Genotyping solutions could have significant potential applications for the enforcement of cotton trade quotas in the U.S. and across the globe, and for legislated quality improvement within the industry. We believe that similar issues face the wool and other natural product industries which is the next area we plan to target.

***Secure Documents***

Governments worldwide are increasingly faced with the problems of counterfeit currencies, official documents, and identity and security cards, as well as terrorism and other security threats. 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. Our SigNature DNA solution can provide secure, forensic, and cost-effective anti-counterfeiting, anti-piracy and identification solutions to local, state, and federal governments as well as the defense contractors and the other companies that do business with them. Our SigNature solution can be used for all types of identification and official documents, such as:

- passports;
- lawful permanent resident, or "green" cards;
- visas;
- drivers' licenses;
- Social Security cards;
- military identification cards;
- national transportation cards;
- security cards for access to sensitive physical locations; and
- other important identity cards, official documents and security-related cards.

***Homeland Security***

The U.S. military is facing the challenge of the increasing intrusion of counterfeit electronics and other parts into its supply lines. This problem isn't 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 Pentagon is relying more heavily on older platforms, with parts that are becoming obsolete. In 2010, the US military purchased 59,000 counterfeit microchips from China. 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. 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 SigNature DNA solution can provide secure, forensic, and cost-effective anti-counterfeiting, anti-piracy and identification solutions to military organizations globally in need of securing their supply chains.

***Pharmaceuticals***

The pharmaceutical industry also faces major problems relative to counterfeit, diluted, or falsely labeled drugs that make their way through healthcare systems worldwide, posing a health threat to patients and a financial threat to drugmakers and distributors. As a result, the pharmaceutical industry and regulators are examining emerging anti-counterfeit technologies, including RFID tags and EPCs to help stem the wave of counterfeit drugs and better track legitimate drugs from manufacturing through the supply chain. Our SigNature DNA Markers can easily be embedded directly into pharmaceutical packaging or into RFID tags or EPCs attached to packaging, and since they are ingestible, may be applied as part of a unit dose. According to the IACC, approximately 10% of pharmaceuticals worldwide are counterfeit. In some developing countries this figure rises to 70%.

***Consumer Products***

Counterfeit items are a significant and growing problem with all kinds of consumer packaged goods, especially in the retail and apparel industries. According to the International Trademark Association, up to 22% of all branded apparel and footwear sold worldwide is counterfeit and Havocscope values the counterfeit clothing market at $12 billion. We have developed and are currently marketing a number of solutions aimed at brand protection and authentication for the retail and apparel industries, including the clothing, accessories, fragrances and cosmetics segments. Our SigNature DNA solution 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.

***Fine Wine***

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

- Verifed authenticity increases potential customers' confidence in the product and their purchase decision;
- For the vintner, the SigNature and BioMaterial Genotyping 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; BioMaterial Genotyping allows the identification of wine based on the varietal of grape and the region it is grown in.

***Law Enforcement***

Law enforcement organizations are always looking for a system they can use which will provide absolute proof of authentication. Specifically developed for covert operations, DNANet products form an invisible coating when applied to skin, plastics, metals, glass, wood and fabric. We believe that DNANet enhances law enforcement effectiveness by providing forensic quality evidence.

***Art and Collectibles***

The fine art and collectibles markets are particularly vulnerable to counterfeiting, forgeries and fraud. Phony artwork and collectibles are often sold with fake or questionable signatures or attributions. We believe our SigNature DNA Markers can safely be embedded directly 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.

***Digital and Recording Media***

The digital and recording media industry, including the segment that records computer software on compact discs, faces significant threats from piracy and the counterfeiting and distribution of imitation media or software. In 2010 the Business Software Alliance ("BSA") reported that in 2010, the United States software industry lost $9.5 billion as a result of software piracy, an increase of $11 billion over the previous year. An independent study conducted by IDC for the BSA reported that 20 percent of software in the United States is unlicensed. Our SigNature DNA Markers can be embedded onto digital and recording media products, such as CDs, DVDs, videotapes and computer software, as well as the packaging of these products.

**Our Technology**

Every living organism has a unique DNA code that determines the character and composition of its cells. The core technologies of our business allow us to use the DNA of everyday plants to mark objects in a unique manner that we believe cannot be replicated, and then identify these objects by detecting the absence or presence of the DNA. Our scientific team was able to develop genetic based assays and protocols to identify DNA markers that are endogenous to a particular plant in order to differentiate between biological strains of cotton and we are now employing the same methodology in wool, wine and other natural products. In addition, in the case of Pima cotton, we have developed proprietary technologies to differentiate between Pima (G. barbadense) and Non-Pima (G. hirsutum) cotton with absolute certainty. In the process, we were also able to develop an approach to attach an exogenous DNA marker to a finished textile product. 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. In addition to the global cotton trade, the markets for BioMaterial Genotyping include biotherapeutics, nutraceuticals, natural foods, wines and fermented alcohols and other natural textiles.

***SigNature DNA Encryption***

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

***SigNature DNA Encapsulation***

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

***SigNature DNA Embedment***

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

***SigNature DNA Authentication***

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

**Products and Services**

Our SigNature DNA solution consists of three steps: creating and encapsulating a specific encrypted DNA segment, applying it to a product or other item, and detecting the presence or absence of the specific segment. We plan for the first two steps to be controlled exclusively by us and our certified agents to ensure the security of SigNature DNA Markers. Once applied, the presence of any of our SigNature DNA Markers can be detected by us or a customer in a simple spot test, or a sample taken from the product or other item can be analyzed forensically to obtain definitive proof of the presence or absence of a specific type of SigNature DNA Marker (e.g., one designed to mark a particular product).

***Creating a Customer or Product-Specific SigNature DNA Marker***

Our SigNature DNA Markers are botanical DNA segments custom manufactured by us to identify a particular class of or individual products or items. During this manufacturing process, we scramble and encrypt a naturally occurring botanical DNA code segment or segments, and then encapsulate the resulting DNA segment utilizing our proprietary SigNature DNA Encapsulation system. We then record and store the sequence of the DNA segment in a secure database in order that we can later detect it.

***Embedding the SigNature DNA Marker***

Our SigNature DNA Markers may be directly embedded in products or other items, or otherwise attached by embedding them into media that is incorporated in or attached to the product or item. For example, we can embed SigNature DNA Markers directly in paper, metal, plastics, stone, ceramic, and other materials. Media in which we can embed SigNature DNA Markers include:

*SigNature DNA Ink:* Our SigNature DNA Ink can be applied directly or on a label that is then affixed to the product or item. SigNature DNA Ink is highly durable and degradation resistant. SigNature DNA Ink can be visible (colored) or invisible. This makes it possible to mark products with a visible, or overt, and/or invisible, or covert, SigNature DNA Marker on any tangible surface such as a label. The location of covert Signature DNA Markers on a product are recorded and stored in a secure database. Similar media like varnish and paints can also be used instead of ink. Examples of where our SigNature DNA Inks can be used include:

- artwork and collectibles (paintings, artifacts, antiques, stamps, coins, documents, collectibles and memorabilia);
- corporate documents (confidential, date and time dependent documents or security clearance documents);
- financial instruments (currency, stock certificates, checks, bonds and debentures);
- retail items (event tickets, VIP tickets, clothing labels, luxury products);
- pharmaceuticals (tablet, capsule and pill surface printing); and
- other miscellaneous items (lottery tickets, inspection stamps, custom seals, passports and visas, etc.).

We have also developed a portfolio of SigNature DNA containing thermal transfer ribbons. These products will allow retailers to protect at the point-of-sale by printing price labels, hang tags, event tickets and even credentials with customized SigNature markers. We are also able to mark cartridges of laser printers with SigNature DNA.

*SigNature DNA Thread*: Our SigNature DNA Thread, which can consist of any fabric from cotton to wool, is embedded with SigNature DNA Markers and can be used to mark and authenticate products and other items incorporating textiles. For example, SigNature DNA Thread can be incorporated in a finished garment, bag, purse, shoe or other product or item. SigNature DNA Thread can help textile vendors, clothing and accessory manufacturers and governments authenticate thread, yarn and fabric at any stage in the supply chain. We can also embed our SigNature DNA Markers into raw cotton fiber before manufacture of a finished cotton textile product (e.g., a t-shirt) and authenticate a finished cotton product. We have completed our feasibility studies with the Textile Centre of Excellence consortium of companies (Leeds, UK) to demonstrate how our SigNature DNA can be used to authenticate textiles at all points of the supply chain through to the end user. In addition, we have demonstrated the integration of SigNature DNA with existing manufacturing processes to produce threads, labels and fabrics manufactured by Yorkshire-based companies and are beginning to work on commercial projects with these companies.

*Cashield™ Security Ink*: In 2010, we developed a new product line, Cashield™, which is a family of cash degradation inks that permanently stain bank notes stolen from cash-handling or ATM systems. Cashield extends our offering beyond our prior singular product, AzSure®, to a family of security inks that include Red, Violet, Green, Teal, Indigo, and the original AzSure® Blue. Current degradation dyes suffer from a critical technical weakness, as the dyes may be removed by the use of solvents. We initiated the development of Cashield in response to demand for a more effective carrier for our SigNature DNA markers. Cashield has been certified for use in the EU by the Laboratoire National de Métrologie et d'Essais (LNE) and passed all 47 individual dye penetration and wash-out-resistance tests. Additionally, a CViT study presented by the University of Leeds cited Cashield AzSure Blue ink as having improved performance versus staining inks from other suppliers. In this study, the AzSure blue ink was tested across a range of currencies, including British pounds, Euros, and U.S. dollars. The evaluation involved exposure to numerous industrial solvents. Final analysis of the results concluded that the AzSure blue ink was bound strongly in five seconds or less to a variety of banknotes, and could not be removed with any solvent.

*DNANet:* In 2010, we developed DNANet tactical DNA products for law enforcement, in the form of DNA-marked fixative sprays and liquids as well as transferable grease. These products, being marketed to global police forces were created to help link criminals to crimes. DNANet is a tactical forensic system providing unique DNA codes for covert operations that require absolute proof of authentication.

S*martDNA:* In 2011, we introduced SmartDNA is a unique and patented security system based on botanical DNA, a new and effective crime protection system for stores, warehouses, banks, pharmacies, ATMs and the protection of valuables. The system contains a water-based, non-toxic spray which may be triggered during a crime, marking the perpetrator and remaining on their person for weeks after the crime. Each SmartDNA product is designed to be unique to each store, warehouse or sting operation allowing the police and prosecutors to link criminals to the crimes.

*Other Security Devices*: Our SigNature DNA Markers can also be embedded onto printed barcodes, RFID tags, optical memory strips, holograms, tamper proof labels and other security devices incorporated into products and other items for various security-related purposes.

***SigNature DNA Detection and Product Authentication***

We now offer a full range of detection options from instant rapid screening to more detailed forensic level authentication:

*Level 1 "Spot Test" Detection*: We offer rapid readers capable of instantly testing for the presence or absence of any of our SigNature DNA Markers.

*Level 2 Forensic DNA Authentication*: When a forensic level of authentication is necessary, we offer in-field or in-house forensic DNA authentication that will confirm authentication sequences in approximately 24 hours.

**Sales and Marketing**

As of December 8, 2011, we had eight employees engaged in sales and marketing. We expect to hire additional sales directors and/or consultants to assist us with sales and marketing efforts with respect to our ten target vertical markets.

**Research and Development**

Our research and development efforts are primarily focused on the development of prototypes of new versions of our products using our existing technologies for review by prospective customers, such as different types of SigNature DNA Ink and SigNature DNA Thread. We are also focused on the identification of additional genotyping markers. Nonetheless, we believe that our development of new and enhanced technologies relating to our business may be important to our future success, and we continue to examine whether investments in the research and development of such technologies is merited.

**Raw Materials and Suppliers**

Our sources of raw materials include botanical sources of DNA that are readily available in nature, which we are able to replicate to use in our product offerings. In general, our customers provide their materials to us in their own packaging to which we include our DNA products and return to them in their own packaging. In addition, Printcolor Screen Ltd. supplies the ink for our Cashield products, and SKS Bottle & Packaging supplies us with the plastic bottles used in packaging our DNANet sprays and liquids.

**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 BioMaterial Genotyping authentications.

**Distribution of our Products and Commercial Agreements**

*Cash-in Transit.* We can use our SigNature DNA platform to offer a forensic security solution for banks and institutions operating in the cash-in-transit industry, including automated teller machine (ATM) operations and banknote transportation and storage. We can embed our SigNature DNA Marker into cash degradation inks that are placed in cash-in-transit boxes. If a cash box is compromised or illegally accessed, the security device discharges the liquid cash degradation dye into the banknotes, which can be detected after the banknotes are recovered by police. Since January 2008, we have been engaged with Loomis Group U.K., a cash-handling company, and Spinnaker International, a cash-in-transit box manufacturer, pursuant to which we provide signature DNA for use in boxes and authentication and expert witness reports. In July 2009, we joined Banknote Watch, a national U.K.-based crime prevention initiative.

*Printcolor Agreement*. On September 16, 2009, we entered into a Supply and Distribution Agreement, pursuant to which Printcolor Screen Ltd. has agreed to manufacture and supply to us on an exclusive basis AzSure security ink for an initial period of five years, unless the agreement is mutually terminated by the parties or terminated for material breach.

*Supima Cotton Agreement*. On June 27, 2007, we entered into a Feasibility Study Agreement with Supima, a non-profit organization for the promotion of U.S. pima cotton growers. In connection with the agreement we undertook a study of the feasibility of establishing a method or methods to authenticate and identify U.S. produced pima cotton fibers. We received payments from Supima upon signing of the agreement and in installments beginning on July 6, 2007 through completion of the feasibility study. The feasibility study was successfully completed in the first quarter of 2008. We have begun a preliminary launch of authentication services and we may in the future offer authentication services to member companies of Supima (as well as non-member companies) to confirm the Supima cotton content of textile items such as apparel and home fashion products. We are obligated to pay Supima a percentage of any fees that we receive from such companies for authentication services we provide them. We are also obligated to pay Supima fifty percent of the aggregate amount of payments that we received from Supima for the feasibility study out of any fees we receive from providing authentication services. In addition, until the earlier of either (i) five years from June 18, 2007 or (ii) the repayment to Supima of fifty percent of the aggregate amount of payments that we received from Supima for the feasibility study, we are obligated to pay Supima a fee for each authentication service that we provide. The agreement may be terminated by us or Supima after sixty (60) days upon fourteen (14) days prior written notice.

*Textile Centre of Excellence*. On August 11, 2008, we entered into an Agreement with Huddersfield and District Textile Training Company Limited. We have agreed to undertake a study to demonstrate how our SigNature DNA can be used to authenticate textiles at all points of the supply chain through to the end user. In addition, this study will demonstrate the integration of SigNature DNA with existing manufacturing processes to produce threads, labels and fabrics manufactured by Yorkshire-based companies. The funding for Phase I of the study, which ran through December 2008, totaled £50,000. In June 2010, we received our first order as part of our participation in the multi-year contract funded by the European Regional Development Fund and Yorkshire Forward. The initiating order for our products (approximately $50,000) was part of a three-year commitment of an aggregate of $1,500,000 to companies participating in the Yorkshire Forward program.

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

On November 1, 2011, we entered into an Exclusive Sales Agreement with Nissha, pursuant to which we granted Nissha an exclusive right to sell their printing inks and related products incorporating our SigNature DNA authentication markers, initially for fish and fruit products, publications and wood applications, in various countries in Asia for an initial period of three years. The exclusivity rights granted to Nissha are conditioned upon Nissha achieving minimum sales targets (or, if below the specified thresholds, paying the shortfall) and payment of annual fees. We also granted Nissha the non-exclusive right to sell their printing inks and related products incorporating our SigNature DNA authentication markers for cosmetics products in the same geographic area during the term of the agreement. We have agreed to supply our SigNature DNA authentication markers to Nissha on pricing terms and conditions to be set forth in the applicable purchase orders.

*C.F. Martin & Co. Agreement*. On July 18, 2011, we entered into a Joint Development Agreement, dated as of June 30, 2011 with C.F. Martin & Co., Inc., a designer and manufacturer of acoustic guitars, strings for acoustic guitars, and related guitar components and accessories ("Martin"). Under the terms of the agreement, we and Martin will jointly develop, create and apply new techniques and know-how for labeling and authenticating guitars, guitar strings and related guitar components and accessories using DNA security markers created by us. Each party shall bear and be responsible for its own expenses and costs of the development and creation of the techniques and know-how. Subject to certain exceptions for us, the agreement provides for a period of exclusivity ("Period of Exclusivity") of six (6) months beginning on June 30, 2011 whereby Martin and we agree not to sell, offer for sale, enter into any agreement with any third party for the future sale of, advertise, or market, anywhere in the world, any jointly developed technique for labeling guitars, guitar strings, and related guitar components and accessories with DNA security markers. The agreement also provides that Martin shall purchase DNA security markers exclusively from us during the longer of the term of the agreement or the Period of Exclusivity. The term of the agreement will continue until the parties agree that the development and creation of techniques or know-how for labeling guitars or guitar strings with DNA security markers is complete, unless either party terminates the agreement by giving at least sixty (60) days written notice to the other party.

*Disc Graphics Agreement*. On July 8, 2011, we entered into an agreement, dated as of July 7, 2011 (the "Agreement") with Disc Graphics Inc., a provider of specialty packaging ("DG"). Under the terms of the agreement, DG will purchase DNA security markers ("Markers") from us to be incorporated into coatings for DG's products. Additionally, DG will be our exclusive distributor in North America of Markers for the folding carton offset print sector and non-exclusive distributor of Markers for pressure sensitive labels. We are obligated to provide Markers for up to a fixed amount of coatings. We received an initial fee upon entering the agreement, and are entitled to an annual fee for the Markers, as well as fees for any authentication services provided by us. The initial term of the agreement is three years and will automatically renew for successive one year periods, unless either party terminates the agreement by giving written notice to the other party at least ninety (90) days prior to the end of the third year. After the initial term, we have the right to terminate if DG does not pay the annual fee.

*3SI Agreement*. On August 9, 2011, the Company 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, the parties also entered into a License Agreement, 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, the Company 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.

*Defense Logistics Agency*. On June 17, 2011, we received approval and permission to disclose from the Defense Logistics Agency of the U.S. Department of Defense (the "DLA") a time and material subcontract (the "Subcontract") that we entered into on June 2, 2011 with the Logistics Management Institute ("LMI"). Under the terms of the Subcontract, the Company will perform work and services for LMI and the DLA relating to a program to demonstrate the functional, technical and business viability of DNA marking technology as an anti-counterfeiting measure by using it in the DLA microcircuit supply chain. The program is divided into six tasks and involves the preparation, implementation and evaluation of marking materials for microcircuit chips and packages, creation of a business case analysis, development of a pricing and transition plan and identification of feasible techniques to apply DNA marks in conjunction with laser marking. The period of performance of the Subcontract is from May 26, 2011 through November 26, 2012. The Company is entitled to receive payments for performance under the Subcontract through November 26, 2012, for a total amount not to exceed $913,400 (with no minimum), assuming the successful completion of the six tasks of the program.

*Manufacturer of Writing Instruments*. On December 21, 2009, we entered into a Supply Agreement with an international manufacturer of writing instruments. In the agreement, we agreed to supply the company with our authentication marks for an initial period of five years. We will receive an annual fee for each unique authentication mark purchased. There is the potential to receive additional fees if more than three authentications per year are ordered. In exchange for exclusive rights in a specific field, the company has agreed to minimum volume purchases for each year of the agreement.

**Competition**

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

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 14 patents, 8 patents pending, 14 provisional patents, 9 registered trademarks, and 5 registered trademarks pending, and our trade secrets, copyrights and other intellectual property rights are important assets for us. Our patents will expire at various times between 2012 and 2024. The duration of our trademark registrations varies from country to country. However, trademarks are generally valid and may be renewed indefinitely as long as they are in use and/or their registrations are properly maintained.

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

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

In connection with a private placement of senior secured convertible notes on July 15, 2010, we granted a security interest in all of our assets, and the assets of APDN (B.V.I.), which includes all of our patents and trademarks.

**Employees**

We currently have 18 full-time employees and three part-time employees, including three in management, nine in operations, eight in sales and marketing and one in investor relations. We expect to increase our staffing dedicated to sales, product prototyping, manufacturing of DNA markers and forensic authentication services. Expenses related to travel, marketing, salaries, and general overhead will be increased as necessary to support our growth in revenue. In order for us to attract and retain quality personnel, we anticipate we will have to offer competitive salaries to future employees. We anticipate that it may become desirable to add additional full and or part time employees to discharge certain critical functions during the next 12 months. This projected increase in personnel is dependent upon our ability to generate revenues and obtain sources of financing. There is no guarantee that we will be successful in raising the funds required or generating revenues sufficient to fund the projected increase in the number of employees. As we continue to expand, we will incur additional costs for personnel.

**Available Information**

We are subject to the informational requirements of the Securities Exchange Act of 1934, which requires us to file our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, amendments to such reports and other information with the Securities and Exchange Commission ("SEC"). This information is available at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Information on the operation of the Public Reference Room can be obtained by calling the SEC at 1-800-SEC-0330. Because we file documents electronically with the SEC, you may also obtain this information by visiting the SEC's website at *www.sec.gov*. Our web site is located at *www.adnas.com.*

**ITEM 1A. RISK FACTORS.**

Because of the following factors, as well as other variables affecting our operating results and financial condition, past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods.

**Risks Relating to Our Business:**

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

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

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

We incurred net operating losses of $8.1 million for the year ended September 30, 2011 and $7.1 million for the year ended September 30, 2010. These net operating losses have principally been the result of the various costs associated with our selling, general and administrative expenses as we commenced operations, acquired, developed and validated technologies, began marketing activities, and incurred interest expense on notes and warrants we issued to obtain financing. Our operations are subject to the risks and competition inherent in a company that moved from the development stage to an operating company. We may not generate sufficient revenues from operations to achieve or sustain profitability on a quarterly, annual or any other basis in the future. Our revenues and profits, if any, will depend upon various factors, including whether our existing products and services or any new products and services we develop will achieve any level of market acceptance. If we continue to incur losses, our accumulated deficit will continue to increase, which might significantly impair our ability to obtain additional financing. As a result, our business, results of operations and financial condition would be significantly harmed, and we may be required to reduce or terminate our operations.

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

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

*If we are unable to obtain additional financing our business operations will be harmed or discontinued, and if we do obtain additional financing our stockholders may suffer substantial dilution.*

We believe that our existing capital resources will enable us to fund our operations until approximately May 2012. We believe we will be required to seek additional capital to sustain or expand our prototype and sample manufacturing, and sales and marketing activities, and to otherwise continue our business operations beyond that date. We have no commitments for any future funding, and may not be able to obtain additional financing or grants on terms acceptable to us, if at all, in the future. If we are unable to obtain additional capital this would restrict our ability to grow and may require us to curtail or discontinue our business operations. Additionally, while a reduction in our business operations may prolong our ability to operate, that reduction would harm our ability to implement our business strategy. If we can obtain any equity financing, it may involve substantial dilution to our then existing stockholders.

*Our independent auditors have expressed substantial doubt about our ability to continue as a going concern, which may hinder our ability to obtain future financing.*

In their report dated December 8, 2011, our independent auditors stated that our financial statements for the year ended September 30, 2011 were prepared assuming that we would continue as a going concern, and that they have substantial doubt about our ability to continue as a going concern. Our auditors' doubts are based on our negative working capital of $1.5 million, recurring net operating loss of $8.1 million, and capital deficiency of $1.0 million for the year ended September 30, 2011. We continue to experience net operating losses. Our ability to continue as a going concern is subject to our ability to generate a profit and/or obtain necessary funding from outside sources, including the sale of our securities, obtaining loans from financial institutions, or obtaining grants from various organizations or governments, where possible. Our continued net operating losses and our auditors' doubts increase the difficulty of our meeting such goals and our efforts to continue as a going concern may not prove successful.

*Our sales cycles for our products and services can take in excess of nine months from initial contact to contract execution, and require significant employee time and financial resources with no assurances that we will realize sales or revenues.*

The sales cycle for our products and services can take in excess of nine months from initial customer contact to contract execution. During this period, we may expend substantial time, effort and financial resources without realizing any revenues with respect to the potential sale.

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

We derive a significant amount of revenues from a few customers. Taken as a group, our top three customers were responsible for approximately 53% and 64% of our revenues for the years ended September 30, 2011 and 2010, respectively. In addition, four customers accounted for approximately 77% and 90% of total accounts receivable at September 30, 2011 and 2010, respectively. 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.

*General economic conditions and the current global financial crisis 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 based on recent severe market declines, residential real estate and mortgage markets, taxation, energy prices, interest rates, consumer confidence and other macroeconomic factors. During a period of economic weakness or uncertainty, demand for consumer goods incorporating our products may weaken, and current or potential customers may defer purchases of our products. Although global economic conditions have improved somewhat since the extreme economic contraction in fiscal years 2008 and 2009, there is still significant uncertainty in the global economy, and there is no guarantee that the global economy will remain in this improved state.

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

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

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

- availability, quality and price relative to competitive solutions;
- customers' opinions of the solutions' utility;
- ease of use;
- consistency with prior practices;
- scientists' opinions of the solutions' usefulness;
- citation of the solutions in published research; and
- general trends in anti-counterfeit and security solutions' research.

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

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

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

Our success depends to a significant extent upon the continued service of Dr. James A. Hayward, our Chairman, Chief Executive Officer and President, and Dr. Benjamin Liang, our Secretary and Strategic Technology Development Officer. We entered into an employment agreement with Dr. Hayward dated July 11, 2011. We do not have an employment agreement with Dr. Liang. Loss of the services of Drs. Hayward or Liang could significantly harm our business, results of operations and financial condition. We do not maintain key-man insurance on the lives of Drs. Hayward or Liang. During fiscal 2011, Dr. Hayward provided $750,000 in loans to and investments in the Company. In the absence of any other financing, curtailment of cash investments by Dr. Hayward could harm our cash availability and our ability to fund our operations.

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

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

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

- product performance, features and liability;
- price;
- timing of product introductions;
- ability to develop, maintain and protect proprietary products and technologies;
- sales and distribution capabilities;
- technical support and service;
- brand loyalty;
- applications support; and
- breadth of product line.

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

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

We currently have few 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. We do not currently have any arrangements with any distributors and we may not be able to 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.

*A manufacturer's inability or willingness to produce our goods on time and to our specifications could result in lost revenue and net losses.*

Though we manufacture prototypes, samples and some of our own products, we currently do not own or operate any significant manufacturing facilities and depend upon independent third parties for the manufacture of some of our products to our specifications. The inability of a manufacturer to ship orders of such products in a timely manner or to meet our quality standards could cause us to miss the delivery date requirements of our customers for those items, which could result in cancellation of orders, refusal to accept deliveries or a reduction in purchase prices, any of which could harm our business by resulting in decreased revenues or net losses upon sales of products, if any sales could be made.

*If we need to replace manufacturers, our expenses could increase, resulting in smaller profit margins.*

We compete with other companies for the production capacity of our manufacturers and import quota capacity. Some of these competitors have greater financial and other resources than we have, and thus may have an advantage in the competition for production and import quota capacity. If we experience a significant increase in demand, or if our existing manufacturers must be replaced, we will need to establish new relationships with another or multiple manufacturers. We cannot assure you that this additional third party manufacturing capacity will be available when required on terms that are acceptable to us or terms similar to those we have with our existing manufacturers, either from a production standpoint or a financial standpoint. We do not have long-term contracts with our manufacturers, and our manufacturers do not produce our products exclusively. Should we be forced to replace our manufacturers, we may experience an adverse financial impact, or an adverse operational impact, such as being forced to pay increased costs for such replacement manufacturing or delays upon distribution and delivery of our products to our customers, which could cause us to lose customers or lose revenues because of late shipments.

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

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

*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 is and will continue to be important to our ability to offer new products. In addition, from time to time we are notified or become aware of patents held by third parties that are related to technologies we are selling or may sell in the future. After a review of these patents, we may decide to seek a license for these technologies from these third parties. There can be no assurance that we will be able to successfully identify new technologies developed by others. Even if we are able to identify new technologies of interest, we may not be able to negotiate a license on favorable terms, or at all. If we lose the rights to patented technology, we may need to discontinue selling certain products or redesign our products, and we may lose a competitive advantage. Potential competitors could license technologies that we fail to license and potentially erode our market share for certain products. Intellectual property licenses would typically subject us to various commercialization, sublicensing, minimum payment, and other obligations. If we fail to comply with these requirements, we could lose important rights under a license. In addition, certain rights granted under the license could be lost for reasons beyond our control, and we may not receive significant indemnification from a licensor against third party claims of intellectual property infringement.

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

Any growth in our operations, if any, will place a significant strain on our current management resources. To manage such growth, we would 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. Future acquisitions, if successfully consummated, would likely create increased working capital requirements, which would likely precede by several months any material contribution of an acquisition to our net income. Our failure to manage growth or future acquisitions successfully could seriously harm our operating results. Also, acquisition costs could cause our quarterly operating results to vary significantly. Furthermore, our stockholders would be diluted if we financed the acquisitions by incurring convertible debt or issuing securities.

Although our operations are principally based within the United States, we have begun to operate and sell to customers in foreign countries. To the extent that our international operations expand, we would face additional risks, including:

- difficulties in staffing, managing and integrating international operations due to language, cultural or other differences;
- different or conflicting regulatory or legal requirements;
- foreign currency fluctuations; and
- diversion of significant time and attention of our management.

*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, and marketing will require the addition of new management personnel and the development of additional expertise by existing management personnel. Because the industry in which we compete is very competitive, we face significant challenges attracting and retaining a qualified personnel base. Although we believe we have been and will be able to attract and retain these personnel, we may not be able to continue to successfully attract qualified personnel. The failure to attract and retain these personnel or, alternatively, to develop this expertise internally would harm our business since our ability to conduct business development and manufacturing will be reduced or eliminated, resulting in lower revenues. We generally do not enter into employment agreements requiring our employees to continue in our employment for any period of time.

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

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

*Intellectual property litigation could harm our business.*

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

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

Because some patent applications in the United States may be maintained in secrecy until the patents are issued, because patent applications in the United States and many foreign jurisdictions are typically not published until eighteen months after filing, and because publications in the scientific literature often lag behind actual discoveries, we cannot be certain that others have not filed patent applications for technology covered by our or our licensor's issued patents or pending applications or that we or our licensors were the first to invent the technology. 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. 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, and we have faced such claims in the past. 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, and vendors and service providers. We have faced such claims and litigation in the past and we cannot assure that we will not be subject to claims in the future. In the event that a claim is successfully brought against us, considering our lack of material revenue and the losses our business has incurred for the period from our inception to September 30, 2011, this could result in a significant decrease in our liquidity or assets, which could result in the reduction or termination of our business.

**Risks Relating to Our Common Stock:**

*There are a large number of shares underlying our options, warrants and convertible notes that may be available for future sale and the sale of these shares may depress the market price of our common stock and will cause immediate and substantial dilution to our existing stockholders.*

As of December 8, 2011, we had 513,233,108 shares of common stock issued and outstanding, outstanding options and warrants to purchase 178,930,280 shares of common stock, and outstanding notes convertible into 82,498,824 shares of common stock. All of the shares issuable upon exercise of our options and warrants may be sold without restriction, except for shares issuable upon exercise of options held by our "affiliates" as defined in Rule 144 under the Securities Act of 1933, as amended. The sale of these shares may adversely affect the market price of our common stock. The issuance of shares upon exercise of options and warrants will cause immediate and substantial dilution to the interests of other stockholders since the selling stockholder may convert and sell the full amount issuable on exercise.

*If we fail to remain current on our reporting requirements, we could be removed from the OTC bulletin board which would limit the ability of broker-dealers to sell our securities and the ability of stockholders to sell their securities in the secondary market.*

Companies trading on The Over The Counter Bulletin Board (the "OTC Bulletin Board"), such as us, must be reporting issuers under Section 12 or Section 15(d) of the Securities Exchange Act of 1934, as amended, and must be current in their reports under Section 13, in order to maintain price quotation privileges on the OTC Bulletin Board. If we fail to remain current on our reporting requirements, we could be removed from the OTC Bulletin Board. As a result, the market liquidity for our securities could be severely adversely affected by limiting the ability of broker-dealers to sell our securities and the ability of stockholders to sell their securities in the secondary market. We have been current in our reporting requirements for the last seven years, however, there can be no assurance that in the future we will always be current in our reporting requirements.

*Our common stock is subject to the "penny stock" rules of the SEC and the trading market in our securities is limited, which makes transactions in our stock cumbersome and may reduce the value of an investment in our stock.*

The SEC has adopted Rule 15g-9 which establishes the definition of a "penny stock," for the purposes relevant to us, as any equity security that has a market price of less than $5.00 per share or with an exercise price of less than $5.00 per share, subject to certain exceptions. For any transaction involving a penny stock, unless exempt, the rules require:

- that a broker or dealer approve a person's account for transactions in penny stocks; and
- the broker or dealer receive from the investor a written agreement to the transaction, setting forth the identity and quantity of the penny stock to be purchased.

In order to approve a person's account for transactions in penny stocks, the broker or dealer must:

- obtain financial information and investment experience objectives of the person; and
- make a reasonable determination that the transactions in penny stocks are suitable for that person and the person has sufficient knowledge and experience in financial matters to be capable of evaluating the risks of transactions in penny stocks.

The broker or dealer must also deliver, prior to any transaction in a penny stock, a disclosure schedule prescribed by the SEC relating to the penny stock market, which, in highlight form:

- sets forth the basis on which the broker or dealer made the suitability determination; and
- that the broker or dealer received a signed, written agreement from the investor prior to the transaction.

Generally, brokers may be less willing to execute transactions in securities subject to the "penny stock" rules. This may make it more difficult for investors to dispose of our common stock and cause a decline in the market value of our stock.

Disclosure also has to be made about the risks of investing in penny stocks in both public offerings and in secondary trading and about the commissions payable to both the broker-dealer and the registered representative, current quotations for the securities and the rights and remedies available to an investor in cases of fraud in penny stock transactions. Finally, monthly statements have to be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stocks.

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

We are a smaller reporting company as defined by Rule 12-b-2 of the Exchange Act and are not required to provide the information required under this item.

**ITEM 2. PROPERTIES.**

We maintain our principal office at 25 Health Sciences Drive, Suite 215, Stony Brook, New York 11790. We moved our principal office to the Long Island High Technology Incubator, which is located on the campus of Stony Brook University, in November 2005. We believe that our current office space and facilities are sufficient to meet our present needs and do not anticipate any difficulty securing alternative or additional space, as needed, on terms acceptable to us.

**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.

*Demodulation, Inc. v. Applied DNA Sciences, Inc., et al.* (Civil Action No. - 2:11-cv-00296-WJM-MF, District of New Jersey):

On May 18, 2011, the Company was served with a complaint in a lawsuit brought by Demodulation, Inc. against the Company, Corning Incorporated, Alfred University, and Alfred Technology Resources, Inc. On July 8, 2011, the Company filed a motion to dismiss the complaint. In response, on August 3, 2011, Demodulation, Inc. filed an amended complaint. Demodulation, Inc. alleges that it was unable to bring its microwire technology to market due to the wrongful acts of defendants, who allegedly conspired to steal Demodulation, Inc.'s trade secrets and other intellectual property and to interfere in its business opportunities. Of the 17 claims alleged in the amended complaint, five are asserted against the Company, including alleged misappropriation of trade secrets, antitrust violations, civil RICO, and patent infringement. The Company believes these claims are without merit. On September 10, 2011, Alfred University filed a motion to transfer the action from the District of New Jersey to the Western District of New York; the Court has not yet decided the motion. Pursuant to an order of the Court, once the transfer motion is decided, the Company intends to file a motion to dismiss the amended complaint for failure to state a claim and on other grounds. The Company intends to vigorously defend the action.

**ITEM 4. (REMOVED AND RESERVED).**

PART II

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

**Market Information**

Our Common Stock is traded over-the-counter on The Over The Counter Bulletin Board (the "OTC Bulletin Board") maintained by the National Association of Securities Dealers under the symbol "APDN." There is no certainty that the common stock will continue to be quoted or that any liquidity exists for our stockholders.

The following table sets forth the quarterly quotes of high and low prices for our common stock on the OTC Bulletin Board during the fiscal years ended September 30, 2010 and September 30, 2011.

| | Fiscal 2010 | | Fiscal 2011 | |
|---|---|---|---|---|
| | High | Low | High | Low |
| First Quarter | $ 0.13 | $ 0.05 | $ 0.09 | $ 0.03 |
| Second Quarter | $ 0.13 | $ 0.06 | $ 0.09 | $ 0.05 |
| Third Quarter | $ 0.08 | $ 0.04 | $ 0.08 | $ 0.04 |
| Fourth Quarter | $ 0.07 | $ 0.03 | $ 0.10 | $ 0.06 |

**Holders**

As of December 8, 2011, we had approximately 700 holders of our common stock. 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 is American Stock Transfer & Trust Company, 6201 15 th Avenue, Brooklyn, New York 11219.

**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**

Other than as previously described in our Quarterly Reports on Form 10-Q or in our Current Reports on Form 8-K, there were no sales of unregistered securities during fiscal 2011.

**ITEM 6. SELECTED FINANCIAL DATA.**

We are a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and are not required to provide the information required under 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. The Annual Report on Form 10-K contains forward-looking statements including statements using terminology such as "can", "may", "believe", "designated to", "will", "expect", "plan", "anticipate", "estimate", "potential" or "continue", or the negative thereof or other comparable terminology regarding beliefs, plans, expectations or intentions regarding the future. You should read statements that contain these words carefully because they:

- discuss our future expectations;
- contain projections of our future results of operations or of our financial condition; and
- state other "forward-looking" information.

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

**Introduction**

We are a provider of botanical-DNA based security and authentication solutions that can help protect products, brands and intellectual property of companies, governments and consumers from theft, counterfeiting, fraud and diversion. SigNature® DNA, SmartDNA, Cashield, DNANet and BioMaterial™ Genotyping, our principal anti-counterfeiting and product authentication solutions, can be used in numerous industries, including cash-in-transit (transport and storage of banknotes), textiles and apparel, identity cards and other secure documents, pharmaceuticals, wine, and luxury consumer goods.

***SigNature DNA***. We use the DNA of plants to manufacture highly customized and encrypted botanical DNA markers, or SigNature DNA Markers, which we believe are virtually impossible to replicate. We have embedded SigNature DNA Markers into a range of our customers' products, including various inks, dyes, textile treatments, thermal ribbon, thread, varnishes and adhesives. These items can then be tested for the presence of SigNature DNA Markers through an instant field detection or a forensic level authentication. Our SigNature DNA solution provides a secure, accurate and cost-effective means for users to incorporate our SigNature DNA Markers in, and then quickly and reliably authenticate and identify, a broad range of items, such as recovered banknotes, branded textiles and apparel products, pharmaceuticals and cosmetic products, identity cards and other secure documents, digital media, artwork and collectibles and fine wine. Having the ability to reliably authenticate and identify counterfeit versions of such items enables companies and governments to detect, deter, interdict and prosecute counterfeiting enterprises and individuals.

***SmartDNA***. SmartDNA is a unique and patented security system based on botanical DNA, a new and effective crime protection system for stores, warehouses, banks, pharmacies, ATMs and the protection of valuables. The system contains a water-based, non-toxic spray which may be triggered during a crime, marking the perpetrator and remaining on their person for weeks after the crime. Each SmartDNA product is designed to be unique to each store, warehouse or sting operation allowing the police and prosecutors to link criminals to the crimes.

***Cashield.*** Cashield is a family of cash degradation inks that permanently stain banknotes stolen from cash-handling or ATM systems. Cashield extends our offering beyond our prior singular product, AzSure ® , to a family of security inks that include Red, Violet, Green, Teal, Indigo, and the original AzSure ® Blue. Current degradation dyes suffer from a critical technical weakness, as the dyes may be removed by the use of solvents. We initiated the development of Cashield in response to demand for a more effective carrier for our SigNature DNA markers. Cashield has been certified for use in the EU by the Laboratoire National de Métrologie et d'Essais (LNE) and passed all 47 individual dye penetration and wash-out-resistance tests. Additionally, a CViT study presented by the University of Leeds cited Cashield AzSure Blue ink as having improved performance versus staining inks from other suppliers. In this study, the AzSure blue ink was tested across a range of currencies, including British pounds, Euros, and U.S. dollars. The evaluation involved exposure to numerous industrial solvents. Final analysis of the results concluded that the AzSure blue ink was bound strongly in five seconds or less to a variety of banknotes, and could not be removed with any solvent.

***DNANet.*** In 2010, we developed DNANet tactical DNA products for law enforcement, in the form of DNA-marked fixative sprays and liquids as well as transferable grease. These products, being marketed to global police forces were created to help link criminals to crimes. DNANet is a tactical forensic system providing unique DNA codes for covert operations that require absolute proof of authentication.

***BioMaterial GenoTyping***. Our BioMaterial GenoTyping solution refers to the development of genetic assays to distinguish between varieties or strains of biomaterials, such as cotton, wool, tobacco, fermented beverages, natural drugs and foods, that contain their own source DNA. We have developed two proprietary genetic tests (FiberTyping™ and PimaTyping™) to track American Pima cotton from the field to finished garments. These genetic assays provide the cotton industry with what we believe to be the first authentication tools that can be applied throughout the U.S. and worldwide cotton industry from cotton growers, mills, wholesalers, distributors, manufacturers and retailers through trade groups and government agencies.

In 2009 we discontinued our BioActive Ingredients program, which we began in 2007. We developed BioActive Ingredients for personal care products, such as skin care products, based on the biofermentation expertise developed during the manufacturing of DNA for our SigNature DNA and BioMaterial Genotyping solutions, and we have decided to focus our business on these security and authentication solutions.

**General**

To date, the substantial portion of our revenues have been generated from sales of our Signature® DNA and BioMaterial™ Genotyping, our principal anti-counterfeiting and product authentication solutions ("authentication services"). We have continued to incur expenses and have limited sources of liquidity. We expect to generate revenues from sales of our SigNature Program, Cashield™, DNANet™, SmartDNA and BioMaterial Genotyping. We have developed or are currently attempting to develop business in the following target markets: cash-in-transit, textile and apparel authentication, secure documents, pharmaceuticals, consumer products, fine wine, art and collectibles, and digital and recording media. Our developments in the cash-in-transit 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 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;
- Allowance for Doubtful Accounts; and
- Fair value of intangible assets.

***Revenue Recognition***

Revenues are derived from research, development, qualification and production testing for certain commercial products.

Revenue from fixed price testing contracts is generally recorded upon completion of the contracts, which are generally short-term, or upon completion of identifiable contractual tasks. At the time we enter into a contract that includes multiple tasks, we estimate the amount of actual labor and other costs that will be required to complete each task based on historical experience. Revenues are recognized which provide for a profit margin relative to the testing performed. Revenue relative to each task and from contracts which are time and materials based is recorded as effort is expended. Billings in excess of amounts earned are deferred. Any anticipated losses on contracts are charged to income when identified. To the extent management does not accurately forecast the level of effort required to complete a contract, or individual tasks within a contract, and we are unable to negotiate additional billings with a customer for cost over-runs, we may incur losses on individual contracts. All selling, general and administrative costs are treated as period costs and expensed as incurred.

For revenue from product sales, we recognize revenue in accordance with Accounting Standards Codification subtopic 605-10, Revenue Recognition ("ASC 605-10"). ASC 605-10 requires that four basic criteria must be met before revenue can be recognized: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred; (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 and the collectability of those amounts. Provisions for discounts and rebates to customers, estimated returns and 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 or is subject to refund until such time that we and the customer jointly determine that the product has been delivered or no refund will be required.

ASC 605-10 incorporates Accounting Standards Codification subtopic 605-25, Multiple-Element Arraignments ("ASC 605-25"). ASC 605-25 addresses accounting for arrangements that may involve the delivery or performance of multiple products, services and/or rights to use assets. The effect of implementing ASC 605-25 on our financial position and results of operations was not significant.

***Allowance for Uncollectible Receivables***

We maintain an allowance for doubtful accounts for estimated losses resulting from the inability of customers to make required payments. We use a combination of write-off history, aging analysis and any specific known troubled accounts in determining the allowance. If the financial condition of customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances could be required.

***Fair Value of Intangible Assets***

We have adopted Accounting Standards Codification subtopic 360-10, Property, Plant and Equipment ("ASC 360-10"). The Statement requires that long-lived assets and certain identifiable intangibles held and used by us be reviewed 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.

We evaluate the recoverability of long-lived assets based upon forecasted undiscounted cash flows. Should impairment in value be indicated, the carrying value of intangible assets will be adjusted, based on estimates of future discounted cash flows resulting from the use and ultimate disposition of the asset. ASC 360-10 also requires assets to be disposed of be reported at the lower of the carrying amount or the fair value less costs to sell.

***Use of Estimates***

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

**Comparison of the Year Ended September 30, 2011 to the Year Ended September 30, 2010**

***Revenues***

For the years ended September 30, 2011 and 2010, we generated $968,848 and $519,844 in revenues from operations, respectively. The increase in revenues for the twelve months ended September 30, 2011 was substantially generated from sales of our SigNature DNA and BioMaterial GenoTyping as a result of an increase in our customer base by 40%.

***Costs and Expenses***

*Selling, General and Administrative*

Selling, general and administrative expenses for the twelve months ended September 30, 2011 increased 16.69% to $8,388,873 from $7,189,020 in the same period in 2010. Included within the selling, general and administrative expenses for the year ended September 30, 2011 was a noncash charge to operations of $3,668,460 for the fair value of vested options issued to officers and employees and other stock based compensation compared to $3,796,255 in 2010.

*Research and Development*

Research and development expenses increased by $192,915 for the twelve months ended September 30, 2011 compared to the same period in 2010 from $75,961 to $268,876, primarily due to an increase in research and development activities to support our increased customer demand.

*Depreciation and Amortization*

In the twelve months ended September 30, 2011, depreciation and amortization decreased by $4,358 compared to the same period in 2010 from $371,914 to $367,556. The decrease is attributable to the aging of fixed assets previously acquired.

*Total Operating Expenses*

Total operating expenses increased to $9,025,305 for the twelve months ended September 30, 2011 from $7,636,895, or an increase of $1,388,410, primarily due to increase in professional and other service providers expenses compared to the for the same period last year.

*Interest Expenses*

Interest expenses for the twelve months ended September 30, 2011, increased to $2,458,667 from $792,549 in the same period of 2010, an increase of $1,666,118. The increase in interest expense was due to the amortization of debt discounts attributable to our convertible notes of $2,096,427 as compared to $512,530 for the same period last year.

***Net Loss***

Net loss for the twelve months ended September 30, 2011 was $10,515,124 compared to $7,909,600 in the same period of 2010, a net change of $ 2,605,524 as a result of the combination of factors described above.

**Liquidity and Capital Resources**

Our liquidity needs consist of our working capital requirements, indebtedness payments and research and development expenditure funding. Historically, we have financed our operations through the sale of equity and convertible debt as well as borrowings from various credit sources. In fiscal 2011, and in prior fiscal years, we have been relying in part on cash infusions from our Chairman, Chief Executive Officer and President, James A. Hayward, in order to fund our operations. During fiscal 2011 and 2010, Dr. Hayward provided $750,000 and $725,000, respectively, in new loans to and investments in the company. In the absence of other sources of financing, curtailment of cash investments by Dr. Hayward could harm our cash availability and our ability to fund our operations, including our ability to meet our payroll and accounts payable obligations.

As of September 30, 2011, we had a working capital deficit of $1,466,770. For the year ended September 30, 2011, we generated a net cash flow deficit from operating activities of $3,761,716 consisting primarily of our loss of $10,515,124, net with non cash adjustments of $3,322,968 in depreciation and amortization charges, $3,705,457 for equity based compensation and settlement of accrued interest. Additionally, we had a net increase in operating assets of $75,528 and a net decrease in operating liabilities of $199,490. Cash used in investing activities was $89,108 consisting of acquisition of equipment. Cash provided by financing activities for the year ended September 30, 2011 totaled $6,580,500 consisting of proceeds from the issuance of convertible debt, net of the capitalized financing costs of $1,895,500, sale of our common stock of $4,735,000, net with related party advance repayments of $50,000.

We expect capital expenditures to be less than $200,000 in fiscal 2012. Our primary investments will be in laboratory equipment to support prototyping and our authentication services.

Exploitation of potential revenue sources will be financed primarily through the sale of securities and convertible debt, exercise of outstanding warrants, issuance of notes payable and other debt or a combination thereof, depending upon the transaction size, market conditions and other factors.

We believe that our existing capital resources will enable us to fund our operations until approximately May 2012. We believe we will be required to seek additional capital to sustain or expand our prototype and sample manufacturing, and sales and marketing activities, and to otherwise continue our business operations beyond that date. We have no commitments for any future funding, and may not be able to obtain additional financing or grants on terms acceptable to us, if at all, in the future. If we are unable to obtain additional capital this would restrict our ability to grow and may require us to curtail or discontinue our business operations. Additionally, while a reduction in our business operations may prolong our ability to operate, that reduction would harm our ability to implement our business strategy. If we can obtain any equity financing, it may involve substantial dilution to our then existing stockholders.

By adjusting our operations and development to the level of capitalization, we believe we have sufficient capital resources to meet projected cash flow deficits. However, if during that period or thereafter, we are not successful in generating sufficient liquidity from operations or in raising sufficient capital resources, on terms acceptable to us, this could have a material adverse effect on our business, results of operations liquidity and financial condition.

Our registered independent certified public accountants have stated in their report dated December 8, 2011, that we have incurred operating losses in the last two years, and that we are dependent upon management's ability to develop profitable operations and raise additional capital. These factors among others may raise substantial doubt about our ability to continue as a going concern.

**Recent Debt and Equity Financing Transactions**

***Fiscal 2010***

During the year ended September 30, 2010, we issued and sold an aggregate principal amount of $270,000 in secured convertible promissory notes bearing interest at 10% per annum to "accredited investors," as defined in regulations promulgated under the Securities Act of 1933, as amended (the "Securities Act"). The promissory notes and accrued but unpaid interest thereon automatically convert one year after issuance at a conversion price equal to a discount to the average volume, weighted average price of our common stock for the ten trading days prior to issuance, and are convertible into shares of our common stock at the option of the holder at any time prior to such automatic conversion at a price equal to the greater of (i) 50% of the average price of our common stock for the ten trading days prior to the date of the notice of conversion and (ii) the automatic conversion price. In addition, any time prior to conversion, we have the irrevocable right to repay the unpaid principal and accrued but unpaid interest under the notes on three days notice. The promissory notes bear interest at the rate of 10% per annum and are due and payable in full on the one year anniversary of their issuance. The warrants are exercisable for cash or on a cashless basis for a period of four years commencing one year after issuance at a price of $0.50 per share. Each warrant may be redeemed at our option at a redemption price of $0.01 upon the earlier of (i) three years after the issuance, and (ii) the date our common stock has traded on The Over the Counter Bulletin Board at or above $1.00 per share for 20 consecutive trading days.

In addition, on July 15, 2010, we issued and sold an aggregate of $1,100,000 in principal amount of senior secured convertible notes bearing interest at a rate of 10% per annum to "accredited investors," as defined in regulations promulgated under the Securities Act (the "Private Placement"). The July 15 Notes are convertible, in whole or in part, at any time, at the option of the holders, into either (A) such number of shares of the Company's common stock, $0.001 par value per share, determined by dividing (i) the principal amount of each Note, together with any and all accrued and unpaid interest and penalties, by (ii) a conversion price of $0.04405, which is equal to a 20% discount to the average volume, weighted average price of our common stock for the ten trading days prior to issuance (the "Common Conversion Price") or (B) securities issued in any Subsequent Financing ("Subsequent Financing Securities") at a conversion price equal to 80% of the price per Subsequent Security paid by investors for Subsequent Securities in a Subsequent Financing (the "Subsequent Financing Price"). A "Subsequent Financing" is the sale by the Company or an affiliate thereof of securities at any time after July 15, 2010 and prior to the earlier of (i) a Qualified Financing or (ii) July 15, 2011. A holder may convert a July 15 Note in whole in connection with any one Subsequent Financing or in part in connection with one or more Subsequent Financings. The July 15 Notes shall be automatically converted upon the earlier of (I) July 15, 2011 and (II) the completion of a Qualified Financing at the election of each holder into either (A) shares of common stock at the Common Conversion Price, (B) Subsequent Securities at a conversion price equal to 80% of the Subsequent Financing Price, or (C) securities issued in a Qualified Financing (the "Qualified Financing Securities") at a conversion price equal to 80% of the price per Qualified Security paid by investors for the Qualified Securities in the Qualified Financing. A "Qualified Financing" is the sale by the Company or an affiliate thereof of securities resulting in gross proceeds (before transaction fees and expenses) in a single transaction equal to or in excess of $10 million. The July 15 Notes bear interest at the rate of 10% per annum and are due and payable in full on July 15, 2011. Until the principal and accrued but unpaid interest under the July 15 Notes are paid in full, or converted into shares of common stock, Subsequent Financing Securities or Qualified Financing Securities, as the case may be (the "Conversion Shares") pursuant to their terms, the Company's obligations under the July 15 Notes will be secured by a lien on all assets of the Company and the assets of APDN (B.V.I.) Inc., the Company's wholly-owned subsidiary.

The July 15 Notes were issued pursuant to a Securities Purchase Agreement (the "Purchase Agreement"), dated as of July 15, 2010, by and among the Company and the purchasers named therein (the "Purchasers"). We have made customary representations and warranties and certain covenants in the Purchase Agreement and the July 15 Notes including, among others, covenants (i) not to offer, sell, grant any option or otherwise dispose of, with certain exceptions, any of our, or our subsidiaries', equity or equity equivalent securities (a "Subsequent Placement"), unless we offer the Purchasers the option to participate pro rata in any proposed or intended issuance, sale or exchange of securities being offered in a Subsequent Placement, (ii) to use commercially reasonable efforts to adopt and comply with Nasdaq or New York Stock Exchange corporate governance standards, (iii) to hire additional senior officers and adopt compensation plans and arrangements that are competitive with comparably situated companies and (iv) not to incur or guarantee any indebtedness, with certain exceptions.

Additionally, the July 15 Notes contain certain events of default that are customarily included in financings of this nature. If an event of default occurs, the Purchasers may require the Company to redeem the July 15 Notes, in whole or in part, at a redemption price equal to the Event of Default Redemption Price (as defined in the July 15 Notes).

We also entered into a registration rights agreement, dated as of the date of the Purchase Agreement (the "Registration Rights Agreement"), with the Purchasers, pursuant to which we have agreed to prepare and file a registration statement with the SEC to register under the Securities Act resales from time to time of the Conversion Shares issued or issuable upon conversion or redemption of the July 15 Notes. Pursuant to the Registration Rights Agreement, we are required to file a registration statement within 45 days of receiving a Demand Registration Request (as defined in the Registration Rights Agreement), and to cause the registration statement to be declared effective within 45 days (or 90 days if the registration statement is reviewed by the SEC). We will be required to pay penalties to Purchasers in the event that these deadlines are not met.

On July 15, 2010, we cancelled a $450,000 principal amount promissory note previously issued to an accredited investor ("Prior Investor") on June 4, 2010 and, in lieu thereof, issued to the Prior Investor a $450,000 principal amount senior secured convertible note (the "Conversion Note") containing the same terms as the form of note issued to the holders in the Private Placement.

On July 15, 2010, we cancelled a $675,000 principal amount promissory note ("Prior Hayward Note") previously issued to James A. Hayward, our Chairman, Chief Executive Officer and President on June 4, 2010 (the "Prior Hayward Note"), and, in lieu thereof, issued to Dr. Hayward a $450,000 principal amount senior secured convertible note containing the same terms as the form of Note issued to the holders in the Private Placement and a $225,000 principal amount promissory note containing the same terms as the Prior Hayward Note.

***Fiscal 2011***

Since October 1, 2010, we issued and sold an aggregate of $1,850,000 in principal amount of senior secured convertible notes bearing interest at a rate of 10% per annum to "accredited investors," as defined in regulations promulgated under the Securities Act. The notes are convertible, in whole or in part, at any time, at the option of the noteholders, into either (A) such number of shares of the Company's common stock, $0.001 par value per share, determined by dividing (i) the principal amount of each note, together with any and all accrued and unpaid interest and penalties, by (ii) a conversion price which is equal to a 20% discount to the average volume, weighted average price of our common stock for the ten trading days prior to issuance (the "Common Conversion Price") or (B) securities issued in any Subsequent Financing ("Subsequent Securities") at a conversion price equal to 80% of the price per Subsequent Security paid by investors for Subsequent Securities in a Subsequent Financing (the "Subsequent Financing Price"). The conversion prices of the notes range between $0.03088 and $0.05529. A "Subsequent Financing" is the sale by the Company or an affiliate thereof of securities at any time after the date of issuance of the notes and prior to the earlier of (i) a Qualified Financing or (ii) the one year anniversary of the issuance of the notes. A noteholder may convert its notes in whole in connection with any one Subsequent Financing or in part in connection with one or more Subsequent Financings. The notes shall be automatically converted upon the earlier of (I) the one year anniversary of their issuance and (II) the completion of a Qualified Financing at the election of each noteholder into either (A) shares of common stock at the Common Conversion Price, (B) Subsequent Securities at a conversion price equal to 80% of the Subsequent Financing Price, or (C) securities issued in a Qualified Financing (the "Qualified Financing Securities") at a conversion price equal to 80% of the price per Qualified Financing Security paid by investors for the Qualified Financing Securities in the Qualified Financing. A "Qualified Financing" is the sale by the Company or an affiliate thereof of securities resulting in gross proceeds (before transaction fees and expenses) in a single transaction equal to or in excess of $10 million. The notes bear interest at the rate of 10% per annum and are due and payable in full on the one year anniversary of issuance of the notes. Until the principal and accrued but unpaid interest under the notes are paid in full, or converted into Conversion Shares pursuant to their terms, the Company's obligations under the notes will be secured by a lien on all assets of the Company and the assets of APDN (B.V.I.) Inc., the Company's wholly-owned subsidiary.

On July 15, 2011, the Company closed a private placement of its common stock. The Company issued and sold 105,263,158 shares of common stock at a purchase price of $0.0475 per share to accredited investors for gross proceeds of $5,000,000.

A registered broker dealer firm acted as our placement agent with respect to the private placement. In connection with the private placement, the Company paid placement agent commissions and discounts aggregating $265,000. In addition, the placement agent or its designees were issued warrants with a seven-year term to purchase an aggregate of 7,578,948 shares of common stock with an exercise price of $0.0475 per share.

We presently do not have any available credit, bank financing or other external sources of liquidity. Due to our brief history and historical operating losses, our operations have not been a material source of liquidity. We will need to obtain additional capital in order to expand operations and become profitable. We intend to pursue the building of a re-seller network outside the United States, and if successful, the re-seller agreements would constitute a source of liquidity and capital over time. In order to obtain capital, we may need to sell additional shares of our common stock or borrow funds from private lenders. There can be no assurance that we will be successful in obtaining additional funding and execution of re-seller agreements outside the Unites States.

We need to seek additional capital to sustain or expand our prototype and sample manufacturing, and sales and marketing activities, and to otherwise continue our business operations beyond May 2012. We have no commitments for any future funding, and may not be able to obtain additional financing or grants on terms acceptable to us, if at all, in the future. If we are unable to obtain additional capital this would restrict our ability to grow and may require us to curtail or discontinue our business operations. Additionally, while a reduction in our business operations may prolong our ability to operate, that reduction would harm our ability to implement our business strategy. If we can obtain any equity financing, it may involve substantial dilution to our then existing stockholders.

Additional investments are being sought, but we cannot guarantee that we will be able to obtain such investments. Financing transactions may include the issuance of equity or debt securities, obtaining credit facilities, or other financing mechanisms. However, the trading price of our common stock has made it more difficult to obtain financing through the issuance of equity or debt securities. Even if we are able to raise the funds required, it is possible that we could incur unexpected costs and expenses, fail to collect significant amounts owed to us, or experience unexpected cash requirements that would force us to seek alternative financing. Further, if we issue additional equity or debt securities, stockholders may experience additional dilution or the new equity securities may have rights, preferences or privileges senior to those of existing holders of our common stock. If additional financing is not available or is not available on acceptable terms, we will have to curtail our operations.

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

**Product Research and Development**

We anticipate spending approximately $500,000 for product research and development activities during the next twelve months.

**Acquisition of Plant and Equipment and Other Assets**

We do not anticipate the sale of any material property, plant or equipment during the next 12 months. We do anticipate spending approximately $50,000 on the acquisition of leasehold improvements during the next 12 months. We believe our current leased space is adequate to manage our growth, if any, over the next 2 to 3 years.

**Number of Employees**

We currently have 18 full-time employees and three part-time employees, including two in management, ten in operations, eight in sales and marketing and one in investor relations. We expect to increase our staffing dedicated to sales, product prototyping, manufacturing of DNA markers and forensic authentication services. Expenses related to travel, marketing, salaries, and general overhead will be increased as necessary to support our growth in revenue. In order for us to attract and retain quality personnel, we anticipate we will have to offer competitive salaries to future employees. We anticipate that it may become desirable to add additional full and or part time employees to discharge certain critical functions during the next 12 months. This projected increase in personnel is dependent upon our ability to generate revenues and obtain sources of financing. There is no guarantee that we will be successful in raising the funds required or generating revenues sufficient to fund the projected increase in the number of employees. As we continue to expand, we will incur additional costs for personnel.

**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.

**Going Concern**

The accompanying audited condensed consolidated financial statements included in this filing have been prepared in conformity with generally accepted accounting principles that contemplate our continuance as a going concern. Our auditors, in their report dated December 8, 2011, have expressed substantial doubt about our ability to continue as going concern. Our cash position may be inadequate to pay all of the costs associated with the testing, production and marketing of our products. Management intends to use borrowings and the sale of equity or convertible debt to mitigate the effects of its cash position, however no assurance can be given that debt or equity financing, if and when required will be available. The accompanying audited consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded assets and classification of liabilities that might be necessary should we be unable to continue existence.

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

We are a smaller reporting company as defined by Rule 12b-2 under the Exchange Act and are not required to provide the information required under this item.

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

See pages F-1 through F-25 following the Exhibits List.

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

Not applicable.

**ITEM 9A. CONTROLS AND PROCEDURES.**

**Evaluation of Disclosure Controls and Procedures**

We maintain disclosure controls and procedures, as defined in Rule 13a-15(e) promulgated under the Exchange Act that are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure. We carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of September 30, 2011. Based on their evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of September 30, 2011, the Company's disclosure controls and procedures were effective to ensure that the information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms.

**Management Report on Internal Control Over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Under the supervision of our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of September 30, 2011 using the criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

This Annual Report on Form 10-K does not include an attestation report of RBSM LLP, our independent registered public accounting firm, regarding internal control over financial reporting. The effectiveness of internal control over financial reporting was not subject to attestation by our independent registered public accounting firm pursuant to SEC rules that require us to provide only management's report in this Annual Report on Form 10-K.

**Remediation of Previously Disclosed Material Weaknesses**

As of September 30, 2010, management determined that control deficiencies existed that constituted material weaknesses, as described below:

- lack of documented policies and procedures;
- we had no audit committee;
- there was a risk of management override given that our officers have a high degree of involvement in our day to day operations.
- there was no policy on fraud and no code of ethics; and
- there was no effective separation of duties, which includes monitoring controls, between the members of management.

As a result of the material weaknesses described above, management concluded that we did not maintain effective internal control over financial reporting as of September 30, 2010 based on criteria established in Internal Control—Integrated Framework issued by COSO.

In an effort to remediate the identified material weaknesses and other deficiencies and enhance our internal controls, during the fiscal year ended September 30, 2011, management took various actions to strengthen internal controls and improve its disclosure controls over financial reporting. As a result, we remediated the previously reported material weaknesses by performing the following remediation activities:

- We have appointed four independent directors, so that our Board of Directors is currently composed of a supermajority of independent directors;
- We have established certain entity level controls establishing a "tone at the top," including a fully functioning audit committee;
- We have 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, and determined that a whistleblower policy is not necessary given the small size of the organization;
- With an increase in headcount, we have issued policies and procedures regarding the delegation of authority and implemented an adequate segregation of duties consistent with control objectives;
- We have implemented an internal process for the issuance of press releases which includes several layers of review and approvals; and
- The validation of our conclusions regarding significant accounting policies and their application to our business transactions are carried out by personnel with an appropriate level of accounting knowledge, experience, and training.

Through these steps, we believe we are addressing the deficiencies that affected our internal control over financial reporting as of September 30, 2010. Because the remedial actions may require hiring of additional personnel, upgrading certain of our information technology systems, and relying extensively on manual review and approval, the successful operation of these controls for at least several quarters may be required before management may be able to conclude that the material weakness have been remediated. These efforts require significant time and resources.

Notwithstanding the material weaknesses discussed above, our management has concluded that the condensed consolidated financial statements included in this Annual Report on Form 10-K fairly present in all material respects our financial condition, results of operations, and cash flows for the fiscal year ended September 30, 2011 in conformity with accounting principles generally accepted in the United States of America.

**Changes in Internal Controls**

Other than the remediation of the material weaknesses addressed under the heading "Remediation of Previously Disclosed Material Weakness" above, during the fiscal year ended September 30, 2011, there were no changes in our internal control over financial reporting that have materially affected, or are 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, executive officers and significant employees.

| Name | Age | Title | Board of Directors |
|---|---|---|---|
| James A. Hayward | 57 | Chief Executive Officer, President, and Chairman of the Board | Director |
| John Bitzer, III | 50 | | Director |
| Gerald Catenacci | 49 | | Director |
| Karol Gray | 58 | | Director |
| Charles Ryan | 47 | | Director |
| Yacov Shamash | 60 | | Director |
| Sanford R. Simon | 69 | | Director |
| Kurt Jensen | 53 | Chief Financial Officer | |
| Ming-Hwa Benjamin Liang | 48 | Secretary and Strategic Technology Development Officer | |

Directors are elected to serve until the next annual meeting of stockholders and until their successors are elected and qualified. For the majority of fiscal 2011, our Board of Directors consisted of three directors, Dr. James A. Hayward, Sanford R. Simon and Yacov Shamash. Effective as of August 15, 2011, the number of directors on the Board was increased from three to seven and John Bitzer, III, Gerald Catenacci, Karol Gray and Charles Ryan and were appointed to fill such vacancies created on the Board. 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.

Currently, the members of our Board of Directors do not receive any fees for being a director or attending meetings. Our directors are reimbursed for out-of-pocket expenses relating to attendance at meetings. Officers are elected by the Board of Directors and serve until their successors are appointed by the Board of Directors. Biographical resumes of each officer and director are set forth below.

***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. 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. Since 2000, Dr. Hayward has been a General Partner of Double D Venture Fund, a venture capital firm based in New York, New York.

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

***Director-John Bitzer, III***

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

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

Delabarta, Inc., a wholly owned subsidiary of ABARTA, participated as an investor in the Company's private placement (the "Private Placement") of the Company's common stock, par value $0.001 per share, on July 15, 2011, described in our Current Report on Form 8-K filed with the SEC on July 15, 2011, in which it acquired 21,052,632 shares of common stock for a purchase price of $1,000,000. In connection with the Private Placement, the Company agreed to use best efforts to nominate Mr. Bitzer to the Board and elect him as director within 30 days of the closing of the Private Placement and to nominate and include Mr. Bitzer on the slate of nominees for the company's Board of Directors for election by stockholders at the annual meetings of stockholders for so long as Delabarta, Inc., owns at least 2% of the company's outstanding shares of common stock.

On November 30, 2010, the Company issued and sold a $750,000 principal amount senior secured convertible note bearing interest at a rate of 10% per annum to Delabarta, Inc., the terms of which are described in our Current Report on Form 8-K filed with the SEC on December 3, 2010. On January 7, 2010, the Company issued and sold a $750,000 principal amount senior secured convertible note bearing interest at a rate of 10% per annum to Delabarta, Inc., the terms of which are described in our Current Report on Form 8-K filed with the SEC on January 13, 2011.

***Director- Gerald Catenacci***

Gerald Catenacci joined the Board of Directors on August 10, 2011. Mr. Catenacci is the Founder and President of Neustrada Capital, LLC, a private investment fund ("Neustrada"). Mr. Catenacci obtained a Bachelor of Science in Civil Engineering from McMaster University in 1985, and has spent his career in equity management. Mr. Catenacci was the Founding Partner and Managing Member Principled Capital Management, a hedge fund that operated from New York City from 1998 to 2010.

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

Neustrada participated as an investor in the Private Placement and acquired 42,105,263 shares of common stock for a purchase price of $2,000,000. In connection with the Private Placement, the Company agreed to use best efforts to nominate Mr. Catenacci to the Board and elect him as director within 30 days of the closing of the Private Placement and providing for the nomination and inclusion of Mr. Catenacci on the slate of nominees for the company's Board of Directors for election by stockholders at the annual meetings of stockholders for so long as Neustrada owns at least 2% of the company's outstanding shares of common stock.

***Director- Karol Gray***

Karol Gray joined the Board of Directors on August 10, 2011. In December 2011, Ms. Gray assumed the position of Vice President for Finance and Administration at UNC-Chapel Hill. Ms. Gray previously was the Vice President for Finance and Administration and the Chief Financial Officer at the University at Stony Brook. She is active on several committees, including the Brookhaven National Laboratory Audit Committee, the Presidential Budget Working Group, and the Investment Subcommittee of the Research Foundation of the State University of New York, and is a member of the Executive Committee of the State University of New York Business and Officers Association. Ms. Gray is a Certified Public Accountant with a Bachelor in Business Administration from Hofstra University.

Our Board believes that Ms. Gray's professional and management experience at a large university as well as her financial expertise and education make her an important contributor to the Board.

***Director- Charles Ryan***

Dr. Charles Ryan joined the board of Directors on August 10, 2011. Dr. Ryan is the Senior Vice President, and Chief Intellectual Property Counsel at Forest Laboratories, a developer of branded drugs, where he has been employed since 2003. Dr. Ryan has over 18 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 public company make him an important contributor to the Board.

***Director – Yacov Shamash***

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

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.

***Chief Financial Officer – Kurt Jensen***

Kurt H. Jensen, M.Sc.(Cand. Merc.) has been our Chief Financial Officer since December 21, 2007, taking over the position from Dr. Hayward. Mr. Jensen has been our Controller since February 2006. Prior to that date, for a period of more than 23 years, he was employed by Point of Woods Homes, Inc. Mr. Jensen was awarded a M.Sc. in Economics and Business Administration from the Copenhagen Business School in 1983.

***Secretary and Strategic Technology Development Officer – Ming-Hwa Benjamin Liang***

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

**Board Leadership Structure**

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

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

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

**Board of Directors Structure and Committee Composition**

In June 2008, our Board of Directors established a standing compensation committee and in September 2011, our Board of Directors established an audit committee and a nominating committee. Each of the committees operates under a written charter adopted by the Board of Directors. All of the committee charters are available on our web site at *http://www.adnas.com/investors* or by writing to Applied DNA Sciences, Inc., 25 Health Sciences Drive, Suite 215, Stony Brook, New York 11790, c/o Investor Relations.

During fiscal 2011, the Board of Directors held six formal meetings. Each director attended at least 75% of all meetings of the Board of Directors and applicable committee meetings.

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) | M | — | M |
| Gerald Catenacci (I) | — | C | — |
| Karol Gray (I) | C | M | — |
| Charles Ryan (I) | — | M | — |
| Sanford R. Simon (I) | — | — | M |
| Yacov Shamash (I) | M | — | C |

C Chairman
M Member
(I) Independent director

***Audit Committee***

Ms. Gray (Chairperson) and Messrs. Bitzer 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 Ms. Gray is an "audit committee financial expert" as defined in the Exchange Act.

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

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

***Compensation Committee***

Our compensation committee is composed of Gerald Catenacci (Chairperson), Charles Ryan and Karol Gray. 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 the interests and strategic goals of the Company. 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; reviewing, soliciting and making recommendations to the Board of Directors and stockholders with respect to candidates for election to the Board.

***Process for Identifying and Evaluating Nominees for the Board of Directors***

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

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

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

***Review of Director Nominees***. The nominating committee will evaluate any candidates recommended by stockholders against the same criteria and pursuant to the same policies and procedures applicable to the evaluation of candidates proposed by our directors, executive officers, third-party search firms or other sources. In evaluating proposed director candidates, the nominating committee may consider, in addition to any minimum qualifications and other criteria for Board of Directors membership approved by the Board of Directors from time to time, all facts and circumstances that it deems appropriate or advisable, including, among other things, the proposed director candidate's understanding of the company's business and industry on a technical level, his or her judgment and skills, his or her depth and breadth of professional experience or other background characteristics, his or her independence, his or her willingness to devote the time and effort necessary to be an effective board member, and the needs of the Board of Directors. We do not have a formal policy with regard to the consideration of diversity in identifying director nominees. However, the Board of Directors believes that it is essential that its members represent diverse viewpoints, with a broad array of experiences, professions, skills, geographic representation and backgrounds that, when considered as a group, provide a sufficient mix of perspectives to allow the Board of Directors to best fulfill its responsibilities to the long-term interests of our stockholders. The nominating committee considers at least annually, and recommends to the Board of Directors suggested changes to, if any, the size, composition, organization and governance of the Board of Directors and its committees.

***Stockholder Proposals and Nominations***. In order for a stockholder to nominate a person for election as a director at the 2013 annual meeting of stockholders, you must provide written notice to Applied DNA Sciences, Inc., 25 Health Sciences Drive, Suite 215, Stony Brook, New York 11790, c/o Corporate Secretary. The Corporate Secretary must receive this notice within the time period specified in proxy statement for the 2012 annual meeting of stockholders. The notice of a proposed director nomination must provide information and documentation as required in our bylaws which, in general, require that the notice of a director nomination include the information about the nominee that would be required to be disclosed in the solicitation of proxies for the election of a director under federal securities laws; the nominee's written consent to be named in the proxy statement as a nominee and to serve as a director if elected; a description of any transaction or arrangement during the last three years between the stockholder making the nomination and the nominee in which the nominee had a direct or indirect material interest; and a completed and signed questionnaire, representation and agreement. A copy of the bylaw requirements will be provided upon request to the Corporate Secretary at the address above.

**Stockholder Communications with the Board**

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

**Code of Ethics**

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

We have established procedures to ensure that suspected violations of the code may be reported anonymously. A current copy of our code of ethics is available on our website at *http://www.adnas.com/investors*. A copy may also be obtained, free of charge, from us upon a request directed to Applied DNA Sciences, Inc., 25 Health Sciences Drive, Suite 215, Stony Brook, New York 11790, c/o Investor Relations. We intend to disclose any amendments to or waivers of a provision of the code of ethics granted to directors and officers by posting such information on our website available at www.adnas.com and/or in our public filings with the SEC.

**Compliance with Section 16(A) of the Exchange Act**

Since our common stock is registered under Section 15(d) of the Exchange Act, we are not required to file reports of executive officers and directors and persons who own more than 10% of a registered class of the Company's equity securities pursuant to Section 16(a) of the Exchange Act.

**ITEM 11. EXECUTIVE COMPENSATION.**

**Summary Compensation Table**

The following table sets forth the compensation of our principal executive officer and our two other executive officers for the fiscal years ended September 30, 2011 and 2010. We refer to these executive officers as our "named executive officers."

| Name and Principal Position (a) | Year (b) | Salary ($) (c) | Stock Awards ($) (e) | Option Awards ($)(1) (f) | Non-Equity Incentive Plan Compensation ($) (g) | Total ($) (j) |
|---|---|---|---|---|---|---|
| James A. Hayward | | | | | | |
| *Chairman, President and Chief Executive Officer* | 2011 | 65,410 | 877,500 | 2,686,107 | — | 3,214,247 |
| | 2010 | 58,000 | — | 1,326,262 | — | 1,384,262 |
| Kurt H. Jensen | | | | | | |
| *Chief Financial Officer* | 2011 | 196,554 | — | 600,238 | — | 796,792 |
| | 2010 | 140,796 | — | 778,716 | — | 919,512 |
| Ming-Hwa Liang | | | | | | |
| *Chief Technology Officer and Secretary* | 2011 | 135,234 | — | — | — | 135,234 |
| | 2010 | 126,110 | — | 869,974 | — | 996,084 |

(1) The amounts in column (f) represent the grant date fair value under ASC 718-10 based on the average of the bid and asked prices of our common stock on the grant date. On July 11, 2011, our Board of Directors granted 40,000,000 nonstatutory stock options under the 2005 Incentive Stock Plan to Dr. James A. Hayward, our Chairman, President and Chief Executive Officer. The option granted to Dr. Hayward vested 25% on the grant date and shall vest 37.5% on each of the next two anniversaries of the grant date, subject to Dr. Hayward's continuous employment through the applicable vesting date, and if our revenues for any fiscal quarter beginning after the date hereof are at least $1 million more than our revenues for the immediately preceding fiscal quarter, then vesting of the next 37.5% installment will accelerate (such that, if the $1 million increase is met in at least two quarters before the second anniversary of the option grant date, all of the options will have become fully vested as of the end of the second quarter for which the $1 million increase is met). Notwithstanding the foregoing, exercisability of the option is further conditioned upon shareholder approval (at the next annual meeting of shareholders) of the Board's amendment increasing the number of shares of Company common stock available for issuance under the Company's 2005 Incentive Stock Plan from 100 million shares to 350 million shares and the number of shares of common stock that can be covered by awards made to any participant in any calendar year from 25,000,000 to 50,000,000 shares, and if the amendment is not so approved, the option shall expire. On August 12, 2011, our Board of Directors extended the expiration date of the 6,400,000 options to Dr. Hayward and 500,000 options to Mr. Jensen, originally issued on September 1, 2006 for an additional 5 years. The full fair value is reflected above. On July 11, 2011, our Board of Directors granted 10,000,000 nonstatutory stock options under the 2005 Incentive Stock Plan to Mr. Jensen. The options granted to Mr. Jensen vested 25% on the grant date and shall vest 37.5% on each of the next two anniversaries of the grant date, subject to Mr. Jensen's continuous employment through the applicable vesting date, and if our revenues for any fiscal quarter beginning after the date hereof are at least $1 million more than our revenues for the immediately preceding fiscal quarter, then vesting of the next 37.5% installment will accelerate (such that, if the $1 million increase is met in at least two quarters before the second anniversary of the option grant date, all of the options will have become fully vested as of the end of the second quarter for which the $1 million increase is met).

(2) On August 12, 2011, our Board of Directors extended the expiration of the 6,400,000 options to Dr. Hayward and 500,000 options to Mr. Jensen, 250,000 options to Sanford Simon, 250,000 to Yacov Shamash and 1,000,000 to key employees, originally issued on September 1, 2006 for an additional 5 years.

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

The following table shows information concerning outstanding equity awards as of September 30, 2011 held by the Named Executive Officers.

| | Option Awards | | | |
|---|---|---|---|---|
| **Name (a)** | **Number of Securities Underlying Unexercised Options (#) *Exercisable* (1)** | **Number of Securities Underlying Unexercised Options (#) *Unexercisable* (1)** | **Option Exercise Price ($) (1)** | **Option Expiration Date (1)** |
| James A. Hayward | 6,400,000(1) | 0 | $ 0.09 | 9/1/2016 |
| | 17,000,000(2) | 0 | $ 0.05 | 5/27/2015 |
| | 5,000,000(3) | 5,000,000 | 0.06 | 7/1/2015 |
| | 10,000,000(4) | 30,000,000 | 0.0585 | 7/11/2018 |
| Kurt H. Jensen | 500,000(1) | 0 | 0.09 | 9/01/2016 |
| | 5,000,000(2) | 0 | 0.05 | 5/27/2015 |
| | 5,000,000(3) | 5,000,000 | 0.06 | 7/1/2015 |
| | 2,500,000(5) | 7,500,000 | 0.0585 | 7/11/2018 |
| Ming-Hwa Liang | 7,000,000(2) | 0 | 0.05 | 5/27/2015 |
| | 5,000,000(3) | 5,000,000 | 0.06 | 7/1/2015 |

(1) On August 12, 2011, our Board of Directors extended the expiration of the 2006 options for an additional 5 years

(2) On May 27, 2010, our named executive officers elected to forfeit certain stock options to purchase up to 29 million shares of our common stock at an exercise price of $0.11 that were previously granted to them under the 2005 Incentive Stock Plan. In lieu of the forfeited options, our Board of Directors granted new stock options to such named executive officers to purchase up to 29 million shares of our common stock at an exercise price of $0.05 under the 2005 Stock Incentive Plan which are fully vested and became exercisable on June 29, 2010 following approval by our stockholders to amend our certificate of incorporation to increase our authorized shares of common stock.

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

(4) On July 11, 2011, our Board of Directors granted nonstatutory stock options under the 2005 Incentive Stock Plan to Dr. James A. Hayward, our Chairman, President and Chief Executive Officer. The option granted to Dr. Hayward vested 25% on the grant date and shall vest 37.5% on each of the next two anniversaries of the grant date, subject to Dr. Hayward's continuous employment through the applicable vesting date, and if our revenues for any fiscal quarter beginning after the date hereof are at least $1 million more than our revenues for the immediately preceding fiscal quarter, then vesting of the next 37.5% installment will accelerate (such that, if the $1 million increase is met in at least two quarters before the second anniversary of the option grant date, all of the options will have become fully vested as of the end of the second quarter for which the $1 million increase is met). Notwithstanding the foregoing, exercisability of the option is further conditioned upon shareholder approval (at the next annual meeting of shareholders) of the Board's amendment increasing the number of shares of Company common stock available for issuance under the Company's 2005 Incentive Stock Plan from 100 million shares to 350 million shares and the number of shares of common stock that can be covered by awards made to any participant in any calendar year from 25,000,000 to 50,000,000 shares, and if the amendment is not so approved, the option shall expire.

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

**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 participate in or have account balances in non-qualified defined contribution plans maintained by us.

**Deferred Compensation**

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

**Employment Agreements**

***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 the Chief Executive Officer of the Company, and will continue to serve on the Board of Directors. The term of employment will be from July 1, 2011 through June 30, 2014 with automatic one-year renewals subject to ninety days' prior notice of non-renewal by either party. Dr. Hayward will receive an initial annual salary of $225,000, subject to annual review. Dr. Hayward's annual salary would be increased to $350,000 per annum after the first quarter in which our revenues exceed $1 million. The Board of Directors, acting in its discretion, may grant annual bonuses to Dr. Hayward. Dr. Hayward will be eligible for a special cash bonus of up to $750,000, 40% of which would 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. 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.

Dr. Hayward was granted options to purchase 40 million shares of our common stock at an exercise price per share equal to the average of the bid and asked prices of our common stock on the Over The Counter (OTC) Bulletin Board on the date of grant. The option will vest as follows: 25% on the grant date, and 37.5% on each of the next two anniversaries of the grant date, subject to Dr. Hayward's continuous employment. If our revenues for any fiscal quarter increase by more than $1 million over the prior fiscal quarter, then the vesting date for the next 37.5% tranche will be accelerated. Exercisability of options will be conditioned upon stockholder approval of an amendment of our 2005 Incentive Stock Plan made by the Board of Directors increasing the aggregate and individual limits on the shares of our common stock issuable under the Plan. The Company also granted 15 million shares of our common stock to Dr. Hayward.

The agreement with Dr. Hayward also provides that if he is terminated before the end of the initial or a renewal term by the Company without cause or by Dr. Hayward for good reason, then, in addition to previously earned and unpaid salary, bonus and benefits, and subject to the delivery of a general release and continuing compliance with restrictive covenants, Dr. Hayward will be entitled to receive a pro rata portion of the annual bonus he would have received if employment had continued through the end of the year of termination; salary continuation payments for two years following termination equal to the greater of (i) three times base salary or (ii) two times base salary plus bonus; Company-paid COBRA continuation coverage; continuing life insurance benefits (if any) for two years; and extended exercisability of outstanding vested options (for three years from termination date or, if earlier, the expiration of the fixed option term). If termination of employment as described above occurs within six months before or two years after a change in control of the Company, then, in addition to the above payments and benefits, all of Dr. Hayward's outstanding options and other equity incentive awards will become fully vested and Dr. Hayward will receive a lump sum payment of the amounts that would otherwise be paid as salary continuation. In general, a change in control will include a 30% or more change in ownership of the Company.

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

***Employment Agreement with Kurt H. Jensen***

We entered into an employment agreement dated July 11, 2011 with Kurt H. Jensen, our Chief Financial Officer. The agreement provides that Mr. Jensen will be the Chief Financial Officer, Executive Vice President or Chief Operating Officer of the Company, with changes in title and duties as determined from time to time by the Chief Executive Officer. The term of employment will be from July 1, 2011 through June 30, 2014 with automatic one-year renewals subject to ninety days' prior notice of non-renewal by either party. Mr. Jensen will receive an initial annual salary of $225,000, subject to annual review. Mr. Jensen's annual salary would be increased to $250,000 per annum after the first quarter in which our revenues exceed $1 million. The Board of Directors, acting in its discretion, may grant annual bonuses to Mr. Jensen. In addition, Mr. Jensen 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.

Mr. Jensen was granted options to purchase 10 million shares of our common stock at an exercise price per share equal to the average of the bid and asked prices of our common stock on the Over The Counter (OTC) Bulletin Board on the date of grant. The option will vest as follows: 25% on the grant date, and 37.5% on each of the next two anniversaries of the grant date, subject to Mr. Jensen's continuous employment. If our revenues for any fiscal quarter increase by more than $1 million over the prior fiscal quarter, then the vesting date for the next 37.5% tranche will be accelerated.

The agreement with Mr. Jensen also provides that if he is terminated before the end of the initial or a renewal term by us without cause or by Mr. Jensen 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, Mr. Jensen will be entitled to receive a pro rata portion of the annual bonus he would have received if employment had continued through the end of the year of termination; salary continuation payments for 18 months following termination of his salary plus bonus; Company-paid COBRA continuation coverage for 18 months; 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 one year after a change in control of the Company, then, in addition to the above payments and benefits, all of Mr. Jensen's outstanding options and other equity incentive awards will become fully vested and Mr. Jensen will receive a lump sum payment of the amounts that would otherwise be paid as salary continuation. In general, change in control will include a 30% or more change in ownership of the Company.

Upon termination due to death or disability, Mr. Jensen 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, and except that Company-paid COBRA coverage will continue for one year.

**Payment of Post-Termination Compensation**

We have change-in-control agreements with two of our executive officers, and we are obligated to pay severance or other enhanced benefits to executive officers upon termination of their employment. For additional information, see "Employment Agreements" above.

**Director Compensation Fiscal 2011**

We currently have no policy in effect for providing compensation to our non-employee directors for their services on our Board of Directors. During the fiscal year ended September 30, 2011, we did not provide any cash compensation to our non-employee directors for their service on our Board of Directors. In addition, except as noted below, during the fiscal year ended September 30, 2011, we did not provide any equity compensation to our non-employee directors for their service on our Board of Directors.

| | **Fees Earned or Paid in Cash** ($) | **Stock Awards** ($) | **Option Awards** ($)(1) | **All Other Compensation** ($) | **Total** ($)(1) |
|---|---|---|---|---|---|
| *Sanford R. Simon* | — | — | 250,000 | — | 16,202 |
| *Yacov Shamash* | — | — | 250,000 | — | 16,202 |
| *John Bitzer, III* | — | — | — | — | — |
| *Gerald Catenacci* | — | — | — | — | — |
| *Karol Gray* | — | — | — | — | — |
| *Charles Ryan* | — | — | — | — | — |

(1) Compensation recognized solely in connection with the extension of certain outstanding vested stock options. Both the stock options were granted on September 1, 2006 at an exercise price of $0.09 per share, and would have expired on September 1, 2011. The expiration dates of the stock options were extended for an additional five years until September 1, 2016.

**ITEM 12. 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, 2011, (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 25 Health Sciences Drive, Suite 215, Stony Brook, New York 11790.

| NAME AND ADDRESS OF BENEFICIAL OWNER | TITLE OF CLASS | NUMBER OF SHARES OWNED (1)(2) | PERCENTAGE OF CLASS (3) |
|---|---|---|---|
| **Executive Officers and Directors:** | | | |
| James A. Hayward | Common Stock | 145,022,314 (4) | 25.0% |
| Yacov Shamash | Common Stock | 1,226,125 (5) | * |
| John Bitzer, III (11) | Common Stock | 62,690,277 (6) | 11.9% |
| Gerald Catenacci (12) | Common Stock | 42,105,263 | 8.2% |
| Karol Gray | Common Stock | 0 | * |
| Charles Ryan | Common Stock | 0 | * |
| Kurt Jensen | Common Stock | 13,080,000 (7) | 2.0% |
| Ben Liang | Common Stock | 12,403,359 (8) | 1.9% |
| Sanford R. Simon | Common Stock | 908,700 (9) | * |
| **All directors and officers as a group (9 persons)** | Common Stock | 277,436,038 (10) | 44.6% |
| **5% Stockholders:** | | | |
| Delabarta, Inc., (11) | Common Stock | 62,690,277 (6) | 11.9% |
| Neustrada Capital LLC (12) | Common Stock | 42,105,263 | 8.2% |

* indicates less than one percent

(1) 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 common stock shares 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*"). 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.

(2) Does not include unvested shares subject to options granted on July 1, 2010 pursuant to the 2005 Incentive Stock Plan, which vested with respect to 25% of the underlying shares on the date of grant and vest with respect to the remaining shares ratably on each anniversary thereafter until fully vested on the third anniversary of the date of grant, including 5,000,000 to James A. Hayward, 5,000,000 to Kurt H. Jensen and 5,000,000 to Ben Liang. Does not include 7,500,000 unvested shares subject to options granted on July 11, 2011 to Kurt H. Jensen. The option will vest as follows: 25% on the grant date, and 37.5% on each of the next two anniversaries of the grant date, subject to Mr. Jensen's continuous employment. If our revenues for any fiscal quarter increase by more than $1 million over the prior fiscal quarter, then the vesting date for the next 37.5% tranche will be accelerated. Does not include 30,000,000 unvested shares subject to options granted on July 11, 2011 to James A. Hayward. The option will vest as follows: 25% on the grant date, and 37.5% on each of the next two anniversaries of the grant date. If our revenues for any fiscal quarter increase by more than $1 million over the prior fiscal quarter, then the vesting date for the next 37.5% tranche will be accelerated. Exercisability of this option will be conditioned upon stockholder approval of an amendment of our 2005 Incentive Stock Plan made by the Board of Directors increasing the aggregate and individual limits on the shares of our common stock issuable under the Plan. Does not include 954,000 unvested shares subject to five-year options granted on November 30, 2011 to each of our non-employee directors. These option will vest in full on the first anniversary on the date of grant. Exercisability of these options will be conditioned upon stockholder approval of an amendment of our 2005 Incentive Stock Plan made by the Board of Directors increasing the aggregate and individual limits on the shares of our common stock issuable under the Plan.

(3) Based upon 513,233,108 shares of common stock outstanding as of December 8, 2011.

(4) Includes 41,400,000 shares underlying currently exercisable options and warrants and 25,135,473 shares underlying convertible notes.

(5) Includes 750,000 shares underlying a currently exercisable warrant and 476,125 shares underlying a fully vested stock option.

(6) Includes 14,921,324 shares underlying a convertible note.

(7) Includes 40,000 shares held by spouse and 13,000,000 shares underlying currently exercisable options.

(8) Includes 275,392 shares held by spouse and 12,000,000 shares underlying currently exercisable options.

(9) Includes 750,000 shares underlying a currently exercisable warrant and 158,700 shares underlying a fully vested stock option.

(10) Includes 67,930,000 shares underlying currently exercisable options and warrants and 40,056,797 shares underlying convertible notes.

(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) The address of the principal business office for the stockholder is 767 Third Avenue, 6th floor, New York, NY 10017. Gerald Catenacci, one of our directors is President and Chief Executive Officer of the stockholder. Mr. Catenacci disclaims beneficial ownership of the shares held by the stockholder, except to the extent of his pecuniary interest therein.

**Equity Compensation Plan Information**

***2002 Professional/Employee/Consultant Compensation Plan***

In November of 2002, we created a special compensation plan to pay the founders, consultants and professionals that had been contributing valuable services to us during the previous nine months. This plan, under which 2,000,000 shares of our common stock were reserved for issuance, is called the Professional/Employee/ Consultant Compensation Plan (the "Compensation Plan"). Share and option issuances from the Compensation Plan were to be staggered over the following six to eight months, and consultants that were to continue providing services thereafter either became employees or received renewed contracts from us in July of 2003, which contracts contained a more traditional cash compensation component. Each qualified and eligible recipient of shares and/or options under the Compensation Plan received securities in lieu of cash payment for services. Each recipient agreed, in his or her respective consulting contract with us, to sell a limited number of shares monthly. In December of 2004, we adjusted the exercise price of options under the Compensation Plan to $0.60 per share. As of September 30, 2011, a total of 1,440,000 shares have been issued from, and options to purchase 560,000 shares have been issued under the Compensation Plan, and options to purchase 264,000 shares have been exercised as of that date.

***2005 Incentive Stock Plan***

On January 26, 2005, the Board of Directors, and on February 15, 2005, the holders of a majority of the outstanding common stock of the Company approved the 2005 Incentive Stock Plan and authorized the issuance of 16,000,000 shares of common stock as stock awards and stock options thereunder. On May 16, 2007, at the annual meeting of stockholders, the holders of a majority of the outstanding common stock of the Company approved an increase in the number of shares subject to the 2005 Incentive Stock Plan to 20,000,000 shares of common stock. On June 17, 2008, the Board of Directors unanimously adopted an amendment to the 2005 Incentive Stock Plan that increased the total number of shares of common stock issuable pursuant to the 2005 Incentive Stock Plan from a total of 20,000,000 shares to a total of 100,000,000 shares, which was approved by our stockholders at the 2008 annual meeting of stockholders held on December 16, 2008. A proposal to increase the total number of shares issuable pursuant to the 2005 Incentive Stock Plan from 100,000,000 to 350,000,000 and the number of shares of common stock that can be covered by awards made to any participant in any calendar year from 25,000,000 to 50,000,000 was adopted by our Board of Directors and will be voted on by our stockholders at the 2012 annual meeting of stockholders.

The 2005 Incentive Stock Plan is designed to retain directors, executives, and selected employees and consultants by rewarding them for making contributions to our success with an award of options to purchase shares of our common stock. As of September 30, 2011, a total of 9,675,000 shares have been issued and options to purchase 120,650,000 shares have been granted under the 2005 Incentive Stock Plan, however 40,000,000 options granted to Dr. Hayward are conditioned upon shareholder approval (at the next annual meeting of shareholders) of the Board's amendment increasing the number of shares of Company common stock available for issuance under the Company's 2005 Incentive Stock Plan from 100 million shares to 350 million shares and the number of shares of common stock that can be covered by awards made to any participant in any calendar year from 25,000,000 to 50,000,000 shares, and if the amendment is not so approved, this option shall expire.

The Board of Directors, in their 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, 2011:

| 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 *2005 Incentive Stock Plan (1)* | 80,650,000 | $ 0.06 | 9,675,000 |
| Equity compensation plans not approved by security holders | — | $ — | — |
| Total | 80,650,000 | $ 0.06 | 9,675,000 |

**(1)** Does not include an option to buy 40,000,000 shares of common stock. The option is subject to the requisite approval of the stockholders of the Company of an amendment to the Company's 2005 Incentive Stock Plan increasing the number of shares authorized for issuance to 350,000,000 shares and the number of shares of common stock that can be covered by awards made to any participant in any calendar year from 25,000,000 to 50,000,000 shares.

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

**James A. Hayward**

During the fiscal years ended September 30, 2011 and 2010, Dr. James A. Hayward, our President, Chairman and Chief Executive Officer provided $750,000 and $725,000, respectively, in new loans to and investments in the company.

***Fiscal year ended September 30, 2011***. Dr. Hayward participated as an investor in a private placement of our common stock on July 15, 2011, described in our Current Report on Form 8-K filed with the SEC on July 15, 2011 (the "Private Placement"), in which he acquired 10,526,316 shares of common stock using $500,000 recently advanced to the Company. We also issued Dr. Hayward a one-year note convertible into common stock at $.0585 bearing interest at a rate of 4% per annum in the principal amount of $250,000.

***Fiscal year ended September 30, 2010***. On July 15, 2010, we cancelled a $675,000 principal amount promissory note previously issued to Dr. Hayward on June 4, 2010, and, in lieu thereof, issued to Dr. Hayward a $450,000 principal amount senior secured convertible note bearing interest at the rate of 10% per annum ("First July Note") and a $225,000 principal amount promissory note bearing interest at a rate of 10% per annum ("Second July Note").

The First July Note was convertible, in whole or in part, at any time, at the option of the noteholder, into either (A) such number of shares of our common stock, determined by dividing (i) the principal amount of the note, together with any and all accrued and unpaid interest and penalties, by (ii) a conversion price of $0.04405, which is equal to a 20% discount to the average volume, weighted average price of our common stock for the ten trading days prior to issuance (the "Common Conversion Price") or (B) securities issued in any Subsequent Financing ("Subsequent Securities") at a conversion price equal to 80% of the price per Subsequent Security paid by investors for Subsequent Securities in a Subsequent Financing. A "Subsequent Financing" is the sale by the Company or an affiliate thereof of securities at any time after July 15, 2010 and prior to the earlier of (i) a Qualified Financing or (ii) July 15, 2011. On January 7, 2011, the maturity date of the First July Note was extended to the later of (i) the maturity date of the Note or (ii) the maturity date of any other notes to be issued in connection with a financing of up to $3,000,000 aggregate principal amount of senior secured convertible notes by the company by January 31, 2011.

The Second July Note shall automatically convert on the earlier of (a) January 31, 2012 into shares of our common stock at a conversion price of $0.38866151 per share, which is equal to a 20% discount to the average volume, weighted average price of our common stock for the ten trading days prior to issuance or (b) the closing of a Qualified Financing into shares of Qualified Financing Securities at a conversion price equal to a 20% discount to the purchase price paid by investors in the Qualified Financing. In addition, the promissory note is convertible into shares of our common stock at the option of the noteholder at any time prior to such automatic conversion at a price equal to the greater of (i) 50% of the average price of our common stock for the ten trading days prior to the date of the notice of conversion and (ii) $0.38866151. In addition, any time prior to conversion, we have the irrevocable right to repay the unpaid principal and accrued but unpaid interest under the promissory note on three days written notice (during which period the holder can elect to convert the promissory note). The promissory note bears interest at the rate of 10% per annum and is due and payable in full on January 31, 2012. Until the principal and accrued but unpaid interest under the promissory note is paid in full, or converted into shares of our common stock, the promissory note will be secured by a security interest in all of our assets and the assets of our wholly-owned subsidiary, APDN (B.V.I.) Inc.

The foregoing transactions with Dr. Hayward were made on substantially similar terms as transactions with third party investors in our securities during the fiscal years ended September 30, 2011 and 2010.

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

John Bitzer, III, one of our directors, is President and Chief Executive Officer of ABARTA, Inc., a private, fourth-generation family holding-company, which owns Delabarta, Inc. Prior to Mr. Bitzer joining our Board of Directors, Delabarta, Inc. participated as an investor in the Private Placement and acquired 21,052,632 shares of common stock for a purchase price of $1,000,000. In connection with the Private Placement, we agreed to use best efforts to nominate Mr. Bitzer to the Board and elect him as director within 30 days of the closing of the Private Placement and to nominate and include Mr. Bitzer on the slate of nominees for the Board of Directors for election by stockholders at the annual meetings of stockholders for so long as Delabarta, Inc. owns at least 2% of the outstanding shares of common stock.

On November 30, 2010, the company issued and sold a $750,000 principal amount senior secured convertible note bearing interest at a rate of 10% per annum to Delabarta, Inc., the terms of which are described in our Current Report on Form 8-K filed with the SEC on December 3, 2010. On January 7, 2010, the company issued and sold a $750,000 principal amount senior secured convertible note bearing interest at a rate of 10% per annum to Delabarta, Inc., the terms of which are described in our Current Report on Form 8-K filed with the SEC on January 13, 2011.

**Neustrada/ Gerald Catenacci**

Gerald Catenacci, one of our directors, is the Founder and President of Neustrada Capital, LLC, a private investment fund ("Neustrada"). Prior to Mr. Catenacci joining our Board of Directors, Neustrada participated as an investor in the Private Placement and acquired 42,105,263 shares of common stock for a purchase price of $2,000,000. In connection with the Private Placement, we agreed to use best efforts to nominate Mr. Catenacci to the Board and elect him as director within 30 days of the closing of the Private Placement and to nominate and include Mr. Catenacci on the slate of nominees for the Board of Directors for election by stockholders at the annual meetings of stockholders for so long as Neustrada owns at least 2% of the outstanding shares of common stock.

**Policy and Procedure for Approval of Related Person Transactions**

We have a formal policy that requires all related party transactions, which includes transactions with directors, officers and holders of five percent or more of our voting securities and any member of the immediate family of and any entity affiliated with any of the foregoing persons, to be approved by our audit committee. In approving or rejecting any such proposal, our audit committee will consider the relevant facts and circumstances available and deemed relevant to the committee, including, but not limited to, whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances and the extent of the related party's interest in the transaction.

**Director Independence**

Our Board of Directors currently consists of seven members: James A. Hayward, Yacov Shamash, Sanford R. Simon, John Bitzer, III, Gerald Catenacci, Karol Gray and Charles Ryan. Messrs. Bitzer, Catenacci and Ryan and Ms. Gray were elected to the Board on August 10, 2011. Although our securities are not currently listed on a national securities exchange or in an inter-dealer quotation system which has 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, 2011, each of our directors other than Dr. Hayward are "independent" as defined by the listing standards of the Nasdaq Stock Market, constituting a majority of independent directors of our Board of Directors as required by the rules of the Nasdaq Stock 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 auditors during fiscal years ended September 30, 2011 and 2010 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.

| | Fiscal year ended September 30, 2011 | Fiscal year ended September 30, 2010 |
|---|---|---|
| (i) Audit Fees | $ 73,000 | $ 73,000 |
| (ii) Audit Related Fees | — | — |
| (iii) Tax Fees | 7,000 | 20,000 |
| (iv) All Other Fees | — | — |
| Total Fees | $ 80,000 | $ 93,000 |

*Audit Fees* -- Consists of fees billed for professional services rendered for the audit of our consolidated financial statements and review of the interim consolidated financial statements included in quarterly reports and services that are normally provided by RBSM LLP 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." These services consist of responding to SEC comments in connection with our filings with the SEC and the review of and consent to registration statements. There were no audit related fees billed in fiscal 2011 or 2010.

*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 2011 or 2010.

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.

## PART IV

**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, 2011 and 2010, and for the years ended September 30, 2011 and 2010, 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 Schedule

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 8, 2011

/s/ **JAMES A. HAYWARD**
James A. Hayward
*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.

| Name | Position | Date |
|---|---|---|
| /s/ **JAMES A. HAYWARD**<br>James A. Hayward | Chief Executive Officer (*Principal Executive Officer*), President, Chairman of the Board of Directors and Director | December 8, 2011 |
| /s/ **KURT H. JENSEN**<br>Kurt H. Jensen | Chief Financial Officer (*Principal Financial Officer and Principal Accounting Officer*) | December 8, 2011 |
| /s/ **JOHN BITZER, III**<br>John Bitzer, III | Director | December 8, 2011 |
| /s/ **GERALD CATENACCI**<br>Gerald Catenacci | Director | December 8, 2011 |
| /s/ **KAROL GRAY**<br>Karol Gray | Director | December 8, 2011 |
| /s/ **CHARLES RYAN**<br>Charles Ryan | Director | December 8, 2011 |
| /s/ **YACOV SHAMASH**<br>Yacov Shamash | Director | December 8, 2011 |
| /s/ **SANFORD R. SIMON**<br>Sanford R. Simon | Director | December 8, 2011 |

**EXHIBIT INDEX**

The following exhibits are included as part of this Form 10-K . References to "the Company" in this Exhibit List mean Applied DNA Sciences, Inc., a Delaware corporation.

| Exhibit | Description |
|---|---|
| 3.1 | Certificate of Incorporation of Applied DNA Sciences, Inc., filed as an exhibit to the current report on Form 8-K filed with the Commission on January 16, 2009 and incorporated herein by reference. |
| 3.2 | By-Laws of Applied DNA Sciences, Inc., filed as an exhibit to the current report on Form 8-K filed with the Commission on January 16, 2009 and incorporated herein by reference. |
| 4.1 | Form of Subscription Agreement, filed as an exhibit to the current report on Form 8-K filed with the Commission on January 28, 2005 and incorporated herein by reference. |
| 4.2 | Form of 10% Secured Convertible Promissory Note, filed as an exhibit to the current report on Form 8-K filed with the Commission on January 28, 2005 and incorporated herein by reference. |
| 4.3 | Form of Warrant Agreement, filed as an exhibit to the current report on Form 8-K filed with the Commission on January 28, 2005 and incorporated herein by reference. |
| 4.4 | Registration Rights Agreement, dated January 28, 2005, between the Company and Vertical Capital Partners, Inc., on behalf of the investors, filed as an exhibit to the current report on Form 8-K filed with the Commission on January 28, 2005 and incorporated herein by reference. |
| 4.5 | Security Agreement, dated January 28, 2005, between the Company and Vertical Capital Partners, Inc., on behalf of the investors, filed as an exhibit to the current report on Form 8-K filed with the Commission on January 28, 2005 and incorporated herein by reference. |
| 4.6 | Form of Subscription Agreement, filed as an exhibit to the current report on Form 8-K filed with the Commission on October 11, 2007 and incorporated herein by reference. |
| 4.7 | Form of 10% Secured Convertible Promissory Note, filed as an exhibit to the current report on Form 8-K filed with the Commission on October 11, 2007 and incorporated herein by reference. |
| 4.8 | Form of Warrant Agreement, filed as an exhibit to the current report on Form 8-K filed with the Commission on October 11, 2007 and incorporated herein by reference. |
| 10.1† | Applied DNA Sciences, Inc. 2005 Stock Incentive Plan and form of employee stock option agreement thereunder, filed as an exhibit to the registration statement on Form S-8 filed with the Commission on December 4, 2009 and incorporated herein by reference. |
| 10.2# | Joint Development and Marketing Agreement, dated April 18, 2007 by and between Applied DNA Sciences and International Imaging Materials, Inc., filed as an exhibit to the current report on Form 8-K filed with the Commission on April 24, 2007 and incorporated herein by reference. |
| 10.3# | Technology Reseller Agreement, dated May 30, 2007 by and between Applied DNA Sciences, Inc. and Printcolor Screen Ltd., filed as an exhibit to the current report on Form 8-K filed with the Commission on June 1, 2007 and incorporated herein by reference. |

| | |
|---|---|
| 10.4# | Feasibility Study Agreement, dated June 27, 2007 by and between Applied DNA Sciences, Inc. and Supima, filed as an exhibit to the current report on Form 8-K filed with the Commission on July 3, 2007 and incorporated herein by reference. |
| 10.5# | Supply and Distribution Agreement, dated September 16, 2009 by and between Applied DNA Sciences, Inc. and Printcolor Screen Ltd., filed as an exhibit to the annual report on Form 10-K filed with the Commission on December 23, 2009 |
| 10.6#* | Authentication Mark Agreement, dated December 21, 2009 by and between Applied DNA Sciences, Inc. and ***, filed as an exhibit to the quarterly report on Form 10-Q filed with the Commission on February 11, 2010. |
| 10.7# | Authentication Mark Agreement, dated December 14, 2009 by and between Applied DNA Sciences, Inc. and Nissha Printing Co., Ltd., filed as an exhibit to the quarterly report on Form 10-Q filed with the Commission on February 11, 2010. |
| 10.8# | Authentication Mark Agreement, dated December 21, 2009 by and between Applied DNA Sciences, Inc. and ***, filed as an exhibit to the quarterly report on Form 10-Q filed with the Commission on February 11, 2010. |
| 10.9 | Form of Securities Purchase Agreement, filed as an exhibit to the current report on Form 8-K filed with the Commission on July 16, 2010. |
| 10.10 | Form of Note, filed as an exhibit to the current report on Form 8-K filed with the Commission on July 16, 2010. |
| 10.11 | Form of Registration Rights Agreement, filed as an exhibit to the current report on Form 8-K filed with the Commission on July 16, 2010. |
| 10.12 | Security Agreement, dated July 15, 2010, made by the Company in favor of Etico Capital, LLC, filed as an exhibit to the current report on Form 8-K filed with the Commission on July 16, 2010. |
| 10.13 | Security Agreement, dated July 15, 2010, made by APDN BVI in favor of Etico Capital, LLC, filed as an exhibit to the current report on Form 8-K filed with the Commission on July 16, 2010. |
| 10.14 | Trademark Security Agreement, dated July 15, 2010, made by the Company in favor of Etico Capital, LLC, filed as an exhibit to the current report on Form 8-K filed with the Commission on July 16, 2010. |
| 10.15 | Trademark Security Agreement, dated July 15, 2010, made by APDN BVI in favor of Etico Capital, LLC, filed as an exhibit to the current report on Form 8-K filed with the Commission on July 16, 2010. |
| 10.16 | Trademark Security Agreement, dated July 15, 2010, made by APDN BVI, as successor in interest by merger to Rixflex Holdings Limited, in favor of Etico Capital, LLC, filed as an exhibit to the current report on Form 8-K filed with the Commission on July 16, 2010. |
| 10.17 | Patent Security Agreement, dated July 15, 2010, made by APDN BVI in favor of Etico Capital, LLC, filed as an exhibit to the current report on Form 8-K filed with the Commission on July 16, 2010. |
| 10.18 | Patent Security Agreement, dated July 15, 2010, made by APDN BVI, as successor in interest by merger to Rixflex Holdings Limited, in favor of Etico Capital, LLC, filed as an exhibit to the current report on Form 8-K filed with the Commission on July 16, 2010. |

| | |
|---|---|
| 10.19 | Form of Prior Investor Security Agreement, filed as an exhibit to the current report on Form 8-K filed with the Commission on July 16, 2010. |
| 10.20 | Form of Warrant, filed as an exhibit to the current report on Form 8-K filed with the Commission on July 16, 2010. |
| 10.21 | 10% Secured Convertible Promissory Note issued by the Company to James A. Hayward, filed as an exhibit to the current report on Form 8-K filed with the Commission on July 16, 2010. |
| 10.22 | Form of Subscription Agreement by and among Applied DNA Sciences, Inc. and the investors named on the signature pages thereto, filed as an exhibit to the current report on Form 8-K filed with the Commission on November 26, 2010. |
| 10.23 | Form of Note, filed as an exhibit to the current report on Form 8-K filed with the Commission on November 26, 2010. |
| 10.24 | Form of Joinder Agreement to Registration Rights Agreement filed as an exhibit to the current report on Form 8-K filed with the Commission on November 26, 2010. |
| 10.25 | Form of Joinder Agreement to Security Agreement filed as an exhibit to the current report on Form 8-K filed with the Commission on November 26, 2010. |
| 10.26 | Form of Joinder Agreement to Security Agreement (APDN BVI) filed as an exhibit to the current report on Form 8-K filed with the Commission on November 26, 2010. |
| 10.27 | Agreement, dated August 11, 2008, by and between Huddersfield and Textile Training Company, Limited and Applied DNA Sciences, Inc. filed as an exhibit to the annual report on Form 10 K/A filed with the Commission on July 25, 2011. |
| 10.28* | Form of Subscription Agreement, dated July 15, 2011, by and among Applied DNA Sciences, Inc. and the investors named on the signature pages thereto. |
| 10.29* | Form of Warrant, dated July 15, 2011, issued to the investors named on the signature pages thereto. |
| 10.30#* | Joint Development Agreement, dated June 30, 2011, between C.F. Martin & Co., Inc. and Applied DNA Sciences, Inc. |
| 10.31#* | Agreement, dated July 7, 2011, between Disc Graphics and Applied DNA Sciences, Inc. |
| 10.32†* | Employment Agreement, dated July 11, 2011, between James A. Hayward and Applied DNA Sciences, Inc. |
| 10.33†* | Employment Agreement, dated July 11, 2011, between Kurt H. Jensen and Applied DNA Sciences, Inc. |
| 10.34 | Subcontract, dated June 2, 2011, between Logistics Management Institute and Applied DNA Sciences, Inc. filed as an exhibit to the quarterly report on Form 10-Q filed with the Commission on August 10, 2011. |
| 23.1* | Consent of RBSM LLP. |
| 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 . |

| | |
|---|---|
| 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 . |
| 32.1* | Certifications of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 . |
| 32.2* | Certifications of Chief Financial Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 . |
| 101 INS* | XBRL Instance Document |
| 101 SCH* | XBRL Taxonomy Extension Schema Document |
| 101 CAL* | XBRL Taxonomy Extension Calculation Linkbase Document |
| 101 LAB* | XBRL Extension Labels Linkbase Document |
| 101 PRE* | XBRL Taxonomy Extension Presentation Linkbase Document |

* Filed herewith.
† Indicates a management contract or any compensatory plan, contract or arrangement.
# A request for confidentiality has been filed for certain portions of the indicated document. Confidential portions have been omitted and filed separately with the Securities and Exchange Commission as required by Rule 24b-2 promulgated under the Securities Exchange Act of 1934.

**APPLIED DNA SCIENCES, INC.**
INDEX TO FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors
Applied DNA Sciences, Inc.
Stony Brook, New York

We have audited the accompanying consolidated balance sheets of Applied DNA Sciences, Inc. (the "Company") as of September 30, 2011 and 2010 and the related consolidated statements of operations, deficiency in stockholders' equity, and cash flows for each of the two years in the period ended September 30, 2011. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based upon our audits.

We conducted our audits in accordance with standards of the Public Company Accounting Oversight Board (United States of America). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements. 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 includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Applied DNA Sciences, Inc. as of September 30, 2011 and 2010, and the results of its operations and its cash flows for each of the two years in the period ended September 30, 2011, in conformity with accounting principles generally accepted in the United States of America.

The accompanying consolidated financial statements have been prepared assuming the Company will continue as a going concern. As discussed in the Note K to the accompanying consolidated financial statements, the Company has suffered recurring losses and does not have significant cash or other material assets, nor does it have an established source of revenues sufficient to cover its operations, which raises substantial doubt about its ability to continue as a going concern. Management's plans in regard to this matter are described in Note K. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ RBSM LLP

New York, New York
December 8, 2011

**APPLIED DNA SCIENCES, INC.**
**CONSOLIDATED BALANCE SHEETS**
**SEPTEMBER 30, 2011 AND 2010**

| | 2011 | 2010 |
|---|---|---|
| ASSETS | | |
| Current assets: | | |
| Cash and cash equivalents | $ 2,747,294 | $ 17,618 |
| Accounts receivable | 208,587 | 63,029 |
| Prepaid expenses | 76,290 | 161,456 |
| Total current assets | 3,032,171 | 242,103 |
| | | |
| Property, plant and equipment-net of accumulated depreciation of $210,862 and $207,097 respectively | 89,108 | 3,765 |
| | | |
| Other assets: | | |
| Deposits | 23,458 | 8,322 |
| Capitalized finance costs-net of accumulated amortization of $1,806,261 and $947,276, respectively | 85,975 | 522,489 |
| | | |
| Intangible assets: | | |
| | | |
| Patients, net of accumulated amortization of $34,257 (Note B) | - | - |
| Intellectual property, net of accumulated amortization and write off of $9,158,056 and $8,794,265, respectively (Note B) | 272,844 | 636,635 |
| | | |
| Total Assets | $ 3,503,556 | $ 1,413,314 |
| | | |
| LIABILITIES AND DEFICIENCY IN STOCKHOLDERS' EQUITY | | |
| | | |
| Current liabilities: | | |
| Accounts payable and accrued liabilities | $ 768,061 | $ 967,550 |
| | | |
| Advances from Officers (Note E) | - | 50,000 |
| Convertible notes payable, net of unamortized discount of $541,120 and $545,920, (Note D) | 3,730,880 | 1,774,080 |
| Total current liabilities | 4,498,941 | 2,791,630 |
| | | |
| Long term debt: | | |
| | | |
| Convertible note payable-related party, net of unamortized discount of $5,286 | - | 219,714 |
| | | |
| Commitments and contingencies (Note H) | | |
| | | |
| Deficiency in Stockholders' Equity- (Note F) | | |
| Preferred stock, par value $0.001 per share; 10,000,000 shares authorized; -0- issued and outstanding as of September 30, 2011 and September 30, 2010 | - | - |
| Common stock, par value $0.001 per share; 800,000,000 shares authorized; 473,325,859 and 346,366,244 issued and outstanding as of September 30, 2011 and 2010, respectively | 473,326 | 346,366 |
| Additional paid in capital | 160,387,716 | 149,396,907 |
| Accumulated deficit | (161,856,427) | (151,341,303) |
| Total deficiency in stockholders' equity | (995,385) | (1,598,030) |
| | | |
| Total Liabilities and Deficiency in Stockholders' Equity | $ 3,503,556 | $ 1,413,314 |

See the accompanying notes to the consolidated financial statements

**APPLIED DNA SCIENCES, INC.**
**CONSOLIDATED STATEMENTS OF OPERATIONS**
**YEARS ENDED SEPTEMBER 30, 2011 AND 2010**

| | 2011 | 2010 |
|---|---|---|
| Revenue | $ 968,848 | $ 519,844 |
| Operating expenses: | | |
| Selling, general and administrative | 8,388,873 | 7,189,020 |
| Research and development | 268,876 | 75,961 |
| Depreciation and amortization | 367,556 | 371,914 |
| Total operating expenses | 9,025,305 | 7,636,895 |
| NET LOSS FROM OPERATIONS | (8,056,457) | (7,117,051) |
| Interest expense, net | (2,458,667) | (792,549) |
| Net loss before provision for income taxes | (10,515,124) | (7,909,600) |
| Income taxes (benefit) | - | - |
| NET LOSS | $ (10,515,124) | $ (7,909,600) |
| Net loss per share-basic and fully diluted | $ (0.03) | $ (0.03) |
| Weighted average shares outstanding- Basic and fully diluted | 376,833,809 | 300,352,913 |

See the accompanying notes to the consolidated financial statements

**APPLIED DNA SCIENCES, INC.**
**CONSOLIDATED STATEMENT OF DEFICIENCY IN STOCKHOLDERS' EQUITY**
**TWO YEARS ENDED SEPTEMBER 30, 2011**

| | Preferred Shares | Preferred Stock Amount | Common Shares | Common Stock Amount | Additional Paid in Capital | Accumulated Deficit | Total |
|---|---|---|---|---|---|---|---|
| Balance, September 30, 2009 | - | $ - | 275,204,070 | $ 275,204 | $ 141,409,667 | $ (143,431,703) | $ (1,746,832) |
| Equity based compensation | - | - | - | - | 1,250,950 | - | 1,250,950 |
| Fair value of vested options issued to directors, officers and employees | - | - | - | - | 2,545,305 | - | 2,545,305 |
| Fair value of vested warrants issued for service | - | - | - | - | 288,314 | - | 288,314 |
| Beneficial conversion feature relating to convertible debentures | - | - | - | - | 744,147 | - | 744,147 |
| Common stock issued in settlement of convertible debentures | - | - | 56,099,888 | 56,100 | 2,975,749 | - | 3,031,849 |
| Common stock issued in exchange for consulting services | - | - | 15,297,286 | 15,297 | 182,540 | - | 197,837 |
| Cancellation of shares held in treasury | - | - | (235,000) | (235) | 235 | - | - |
| Net loss | - | - | - | - | - | (7,909,600) | (7,909,600) |
| Balance, September 30, 2010 | - | - | 346,366,244 | 346,366 | 149,396,907 | (151,341,303) | (1,598,030) |
| Equity based compensation | - | - | - | - | 502,082 | - | 502,082 |
| Fair value of vested options issued to directors, officers and employees | - | - | - | - | 1,485,068 | - | 1,485,068 |
| Fair value of vested warrants issued for services | - | - | - | - | 217,971 | - | 217,971 |
| Common stock issued in settlement of convertible debentures | - | - | 5,807,643 | 5,808 | 404,189 | - | 409,997 |
| Common stock issued in exchange for consulting services | - | - | 888,813 | 889 | 64,111 | - | 65,000 |
| Sale of common stock | - | - | 105,263,159 | 105,263 | 4,629,737 | - | 4,735,000 |
| Common stock issued as officer compensation | - | - | 15,000,000 | 15,000 | 862,500 | - | 877,500 |
| Change in fair value of extended vested options | - | - | - | - | 738,810 | - | 738,810 |
| Beneficial conversion feature relating to convertible debentures | - | - | - | - | 2,086,341 | - | 2,086,341 |
| Net loss | - | - | - | - | - | (10,515,124) | (10,515,124) |
| Balance, September 30, 2011 | - | $ - | 473,325,859 | $ 473,326 | $ 160,387,716 | $ (161,856,426) | $ (995,385) |

See the accompanying notes to the consolidated financial statements

**APPLIED DNA SCIENCES, INC**
**CONSOLIDATED STATEMENT OF CASH FLOWS**
**YEARS ENDED SEPTEMBER 31, 2011 AND 2010**

| | 2011 | 2010 |
|---|---|---|
| Cash flows from operating activities: | | |
| Net loss | $ (10,515,124) | $ (7,909,600) |
| Adjustments to reconcile net loss to net cash used in operating activities: | | |
| Depreciation and amortization | 367,556 | 371,914 |
| Fair value of vested options issued to officers, directors and employees | 1,485,068 | 2,545,305 |
| Amortization of capitalized financing costs | 858,985 | 331,665 |
| Amortization of debt discount attributable to convertible debentures | 2,096,427 | 512,530 |
| Equity based compensation | 1,444,583 | 1,250,951 |
| Common stock issued in settlement of interest | 36,997 | 195,794 |
| Fair value change from employee option modifications | 738,810 | - |
| Change in assets and liabilities: | | |
| Increase in accounts receivable | (145,558) | (15,727) |
| Decrease in prepaid expenses and deposits | 70,030 | 31,865 |
| (Decrease) increase in accounts payable and accrued liabilities | (199,490) | 230,114 |
| Net cash used in operating activities | (3,761,716) | (2,455,189) |
| | | |
| Cash flows from investing activities: | | |
| Purchase of property and equipment | (89,108) | - |
| Net cash used in investing activities | (89,108) | - |
| | | |
| Cash flows from financing activities: | | |
| Net proceeds from (repayments of) related party advances | (50,000) | 50,000 |
| Net proceeds from sale of common stock | 4,735,000 | - |
| Net proceeds from issuance of convertible notes | 1,895,500 | 2,209,500 |
| Net cash provided by financing activities | 6,580,500 | 2,259,500 |
| | | |
| Net increase (decrease) in cash and cash equivalents | 2,729,676 | (195,689) |
| Cash and cash equivalents at beginning of year | 17,618 | 213,307 |
| Cash and cash equivalents at end of year | $ 2,747,294 | $ 17,618 |
| | | |
| Supplemental Disclosures of Cash Flow Information: | | |
| Cash paid during the year for interest | $ - | $ - |
| Cash paid during the year for taxes | $ - | $ - |
| | | |
| Non-cash transactions: | | |
| Fair value of warrants issued for financing costs | $ 217,971 | $ - |
| Common stock issued in exchange for previously incurred debt | $ 409,997 | $ 3,031,849 |

See the accompanying notes to the consolidated financial statements

## NOTE A — SUMMARY OF ACCOUNTING POLICIES

A summary of the significant accounting policies applied in the preparation of the accompanying consolidated financial statements follows.

### Business and Basis of Presentation

On September 16, 2002, Applied DNA Sciences, Inc. (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.

The condensed consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries, Applied DNA Operations Management, Inc., APDN (B.V.I.) Inc. and Applied DNA Sciences Europe Limited. Significant inter-company transactions have been eliminated in consolidation.

### Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

### Revenue Recognition

Revenues are derived from research, development, qualification and production testing for certain commercial products. Revenue from fixed price testing contracts is generally recorded upon completion of the contracts, which are generally short-term, or upon completion of identifiable contractual tasks. At the time the Company enters into a contract that includes multiple tasks, the Company estimates the amount of actual labor and other costs that will be required to complete each task based on historical experience. Revenues are recognized which provide for a profit margin relative to the testing performed. Revenue relative to each task and from contracts which are time and materials based is recorded as effort is expended. Billings in excess of amounts earned are deferred. Any anticipated losses on contracts are charged to income when identified. To the extent management does not accurately forecast the level of effort required to complete a contract, or individual tasks within a contract, and the Company is unable to negotiate additional billings with a customer for cost over-runs, the Company may incur losses on individual contracts. All selling, general and administrative costs are treated as period costs and expensed as incurred.

For revenue from product sales, the Company recognizes revenue in accordance with Accounting Standards Codification subtopic 605-10, Revenue Recognition ("ASC 605-10"). ASC 605-10 requires that four basic criteria must be met before revenue can be recognized: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred; (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 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 or is subject to refund until such time that the Company and the customer jointly determine that the product has been delivered or no refund will be required. At September 30, 2011 and 2010, the Company did not record any deferred revenue for the respective periods.

### Cash Equivalents

For the purpose of the accompanying condensed 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. At September 30, 2011 and 2010, the Company has deemed that no allowance for doubtful accounts was necessary.

Income Taxes

The Company has adopted Accounting Standards Codification subtopic 740-10, 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 are insignificant.

Property and Equipment

Property and equipment are stated at cost and depreciated over their estimated useful lives of 3 to 5 years using the straight line method. At September 30, 2011 and 2010, property and equipment consist of:

| | September 30, 2011 | September 30, 2010 |
|---|---|---|
| Computer equipment | $ 33,464 | $ 27,404 |
| Lab equipment | 146,101 | 77,473 |
| Furniture | 120,405 | 105,985 |
| Total | 299,970 | 210,862 |
| Accumulated depreciation | 210,862 | 207,097 |
| Net | $ 89,108 | $ 3,765 |

Impairment of Long-Lived Assets

The Company has adopted Accounting Standards Codification subtopic 360-10, Property, Plant and Equipment ("ASC 360-10"). ASC 360-10 requires that long-lived assets and certain identifiable intangibles held and used by the Company be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. The Company evaluates its long lived assets for impairment annually or more often if events and circumstances warrant. 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 intangible assets will be adjusted, based on estimates of future discounted cash flows resulting from the use and ultimate disposition of the asset. ASC 360-10 also requires assets to be disposed of be reported at the lower of the carrying amount or the fair value less costs to sell.

Comprehensive Income

The Company does not have any items of comprehensive income in any of the years presented.

Segment Information

The Company adopted Accounting Standards Codification subtopic Segment Reporting 280-10 ("ASC 280-10"). ASC 280-10 establishes standards for reporting information regarding operating segments in annual financial statements and requires selected information for those segments to be presented in interim financial reports issued to stockholders. ASC 280-10 also establishes standards for related disclosures about products and services and geographic areas. Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision maker, or decision- making group, in making decisions how to allocate resources and assess performance. The information disclosed herein, materially represents all of the financial information related to the Company's single principal operating segment.

Net Loss Per Share

The Company has adopted Accounting Standards Codification subtopic 260-10, Earnings Per Share ("ASC 260-10") which specifies the computation, presentation and disclosure requirements of earnings per share information. Basic earnings per share have been calculated based upon the weighted average number of common shares outstanding. Dilutive common stock equivalents consist of shares issuable upon conversion of convertible notes and the exercise of the Company's stock options and warrants. For the year ended September 30, 2011 and 2010, common stock equivalent shares are excluded from the computation of the diluted loss per share as their effect would be anti-dilutive.

Fully diluted shares outstanding were 540,969,602 and 300,352,913 for the years ended September 30, 2011 and 2010, respectively.

Stock Based Compensation

The Company follows Accounting Standards Codification subtopic 718-10, Compensation ("ASC 718-10") which requires all share-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. Stock-based compensation expense recognized under ASC 718-10 for the year ended September 30, 2011 and 2010 was $1,485,068 and 2,545,305, respectively.

As of September 30, 2011, 120,650,000 employee stock options were outstanding with 63,900,000 shares vested and exercisable.

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 years ended September 30, 2011 and 2010 included an aggregate of 53% and 64%, respectively, from three customers of the Company's total revenues. Four customers accounted for the Company's 77% and 90% of total accounts receivable at September 30, 2011 and 2010, respectively.

Research and Development

The Company accounts for research and development costs in accordance with the Accounting Standards Codification subtopic 730-10, Research and Development ("ASC 730-10"). Under ASC 730-10, 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. The Company incurred research and development expenses of $268,876 and $75,961 for the years ended September 30, 2011 and 2010, respectively.

Advertising

The Company follows the policy of charging the costs of advertising to expense as incurred. The Company charged to operations $131,938 and $50,195 as advertising costs for the years ended September 30, 2011 and 2010, respectively.

Intangible Assets

The Company amortizes its intangible assets using the straight-line method over their estimated period of benefit. The estimated useful life for patents is five years while other intellectual property uses a seven year useful life. We periodically evaluate the recoverability of intangible assets and take into account events or circumstances that warrant revised estimates of useful lives or that indicate that impairment exists. All of our intangible assets are subject to amortization.

Fair Value of Financial Instruments

In the first quarter of fiscal year 2008, the Company adopted Accounting Standards Codification subtopic 820-10, Fair Value Measurements and Disclosures ("ASC 820-10"). ASC 820-10 defines fair value, establishes a framework for measuring fair value, and enhances fair value measurement disclosure. ASC 820-10 delays, until the first quarter of fiscal year 2009, the effective date for ASC 820-10 for all non-financial assets and non-financial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually). The adoption of ASC 820-10 did not have a material impact on the Company's financial position or operations. Refer to Footnote K for further discussion regarding fair valuation.

Effective October 1, 2008, the Company adopted Accounting Standards Codification subtopic 820-10, Fair Value Measurements and Disclosures ("ASC 820-10") and Accounting Standards Codification subtopic 825-10, Financial Instruments ("ASC 825-10"), which permits entities to choose to measure many financial instruments and certain other items at fair value. Neither of these statements had an impact on the Company's consolidated financial position, results of operations or cash flows. The carrying value of cash and cash equivalents, accounts payable and short-term borrowings, as reflected in the balance sheets, approximate fair value because of the short-term maturity of these instruments

Recently Adopted Accounting Principles

There were various updates recently issued, most of which represented technical corrections to the accounting literature or application to specific industries and are not expected to a have a material impact on the Company's consolidated financial position, results of operations or cash flows.

**NOTE B - INTANGIBLE ASSETS**

The identifiable intangible assets acquired and their carrying values at September 30, 2011 and 2010 are as follows:

| | September 30, 2011 | September 30, 2010 |
|---|---|---|
| Trade secrets and developed technologies (Weighted average life of 7 years) | $ 9,430,900 | $ 9,430,900 |
| Patents (Weighted average life of 5 years) | 34,257 | 34,257 |
| Total Amortized identifiable intangible assets-Gross carrying value: | 9,465,157 | 9,465,157 |
| Less: | | |
| Accumulated amortization | (3,537,302) | (3,173,511) |
| Impairment (2006) | (5,655,011) | (5,655,011) |
| Net: | $ 272,844 | $ 636,635 |
| Residual value: | $ 0 | $ 0 |

Total amortization expense charged to operations for the years ended September 30, 2011 and 2010 were $363,791 and $363,936, respectively.

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

Accounts payable and accrued liabilities at September 30, 2011 and 2010 are as follows:

| | September 30, 2011 | September 30, 2010 |
|---|---|---|
| Accounts payable | $ 165,465 | $ 721,340 |
| Accrued consulting fees | 102,500 | 102,500 |
| Accrued interest payable | 415,096 | 88,937 |
| Accrued salaries payable | 85,000 | 54,773 |
| Total | $ 768,061 | $ 967,550 |

**NOTE D – PRIVATE PLACEMENT OF CONVERTIBLE NOTES**

Convertible notes payable as of September 30, 2011 and 2010 are as follows:

| | September 30, 2011 | September 30, 2010 |
|---|---|---|
| Secured Convertible Notes Payable dated October 14, 2009, net of unamortized debt discount of $819 (see below) | $ - | $ 269,181 |
| Secured Convertible Note Payable dated January 7, 2010, net of unamortized debt discount of $673 and $9,521, respectively (see below) | - | 40,479 |
| Secured Convertible Note Payable dated June 4, 2010, net of unamortized debt discount of $1,332 and $5,286, respectively (see below) | 223,668 | 219,714 |
| Secured Convertible Notes Payable dated July 15, 2010, net of unamortized debt discount of $26,091 and $535,580, respectively (see below) | 423,909 | 1,464,420 |
| Secured Convertible Notes Payable dated November 19, 2010, net of unamortized debt discount of $10,479 (see below) | 339,521 | - |
| Secured Convertible Note Payable dated November 30, 2010, net of unamortized debt discount of $45,136 (see below) | 704,864 | - |
| Secured Convertible Note Payable dated January 7, 2011, net of unamortized debt discount of $65,159 (see below) | 684,841 | - |
| Secured Convertible Notes Payable, dated July 15, 2010, modified January 7, 2011, net of unamortized debt discount of $392,923 (see below) | 1,104,077 | |
| Convertible Note Payable, dated July 11, 2011 | 250,000 | |
| Total | 3,730,880 | 1,993,794 |
| Less: current portion | (3,730,880) | (1,774,080) |
| Long-term debt- net | $ - | $ 219,714 |

10% Secured Convertible Promissory Notes dated October 14, 2009

On October 14, 2009, the Company issued an aggregate of $270,000 convertible promissory notes due October 14, 2010 with interest at 10% per annum due upon maturity. The notes are convertible at any time prior to maturity, at the holders' option, into shares of our common stock at a price equal to the greater of (i) 50% of the average price of our common stock for the ten trading days prior to the date of the notice of conversion or (ii) at $0.092674218 per share, which is equal to a 20% discount to the average volume, weighted average price of our common stock for the ten trading days prior to issuance. At maturity, the notes, including any accrued and unpaid interest, are automatically convertible at $0.092674218 per share. The Company has granted the note holders a security interest in all the Company's assets.

In accordance with ASC 470-20, the Company recognized an embedded beneficial conversion feature present in the notes. The Company allocated a portion of the proceeds equal to the intrinsic value of that feature to additional paid-in capital. The Company recognized and measured an aggregate of $21,343 of the proceeds, which is equal to the intrinsic value of the embedded beneficial conversion feature, to additional paid-in capital and a discount against the notes. The debt discount attributed to the beneficial conversion feature is amortized over the notes' maturity period (one year) as interest expense.

The Company recorded the intrinsic value of the embedded beneficial conversion feature ($21,343) to debt discount which will be amortized to interest expense over the term of the notes. The Company recorded the intrinsic value of the embedded beneficial conversion feature ($21,343) to debt discount which will be amortized to interest expense over the term of the notes. Amortization of $819 and $20,524 was recorded for the years ended September 30, 2011 and 2010, respectively.

On October 14, 2010, the Company issued 3,204,776 shares of common stock in settlement of the convertible notes and related interest.

10% Secured Convertible Promissory Note dated January 7, 2010

On January 7, 2010, the Company issued a $50,000 convertible promissory note due January 7, 2011 with interest at 10% per annum due upon maturity. The note is convertible at any time prior to maturity, at the holder's option, into shares of our common stock at a price equal to the greater of (i) 50% of the average price of our common stock for the ten trading days prior to the date of the notice of conversion or (ii) at $0.052877384 per share, which is equal to a 20% discount to the average volume, weighted average price of our common stock for the ten trading days prior to issuance. At maturity, the note, including any accrued and unpaid interest, is automatically convertible at $0.052877384 per share. The Company has granted the noteholder a security interest in all the Company's assets.

In accordance with ASC 470-20, the Company recognized an embedded beneficial conversion feature present in the note. The Company allocated a portion of the proceeds equal to the intrinsic value of that feature to additional paid-in capital.

The Company recognized and measured an aggregate of $35,103 of the proceeds, which is equal to the intrinsic value of the embedded beneficial conversion feature, to additional paid-in capital and a discount against the note. The debt discount attributed to the beneficial conversion feature is amortized over the note's maturity period (one year) as interest expense.

The Company recorded the intrinsic value of the embedded beneficial conversion feature ($35,103) to debt discount which will be amortized to interest expense over the term of the note. Amortization of $9,521 and $25,582 was recorded for the years ended September 30, 2011 and 2010, respectively.

On January 7, 2011, the Company issued 1,040,142 shares of common stock in settlement of the convertible note and related interest.

10% Secured Convertible Promissory Note dated June 4, 2010

On June 4, 2010, the Company issued a $675,000 related party convertible promissory note due January 31, 2012 with interest at 10% per annum due upon maturity. The note is convertible at any time prior to maturity, at the holder's option, into shares of our common stock at a price equal to the greater of (i) 50% of the average price of our common stock for the ten trading days prior to the date of the notice of conversion or (ii) at $0.038866151 per share, which is equal to a 20% discount to the average volume, weighted average price of our common stock for the ten trading days prior to issuance. At maturity, the note, including any accrued and unpaid interest, is automatically convertible at $0.038866151 per share. The Company has granted the noteholder a security interest in all the Company's assets.

In accordance with ASC 470-20, the Company recognized an embedded beneficial conversion feature present in the note. The Company allocated a portion of the proceeds equal to the intrinsic value of that feature to additional paid-in capital. The Company recognized and measured an aggregate of $19,692 of the proceeds, which is equal to the intrinsic value of the embedded beneficial conversion feature, to additional paid-in capital and a discount against the note. The debt discount attributed to the beneficial conversion feature is amortized over the note's maturity period as interest expense.

The Company recorded the intrinsic value of the embedded beneficial conversion feature ($19,692) to debt discount which will be amortized to interest expense over the term of the note. Amortization of $3,954 and $2,166 was recorded for the years ended September 30, 2011 and 2010, respectively.

On July 15, 2010, $450,000 of the $675,000 related party convertible promissory note was converted to the same terms and conditions as described in the 10% Secured Convertible Promissory Notes dated July 15, 2010 below.

10% Senior Secured Convertible Promissory Notes dated July 15, 2010

On July 15, 2010, the Company issued an aggregate of $2,000,000 senior secured convertible promissory notes due July 15, 2011 with interest at 10% per annum due upon maturity to "accredited investors," as defined in regulations promulgated under the Securities Act of 1933, as amended ("Securities Act"). The notes are convertible at any time prior to maturity, at the holders' option, into shares of our common stock (i) prior to the occurrence of Subsequent Financing at a rate of $0.04405, or (ii) after Subsequent Financing in the event the holder elects to receive conversion shares that are not Subsequent Financing securities, at a rate of $0.04405, or as of any conversion date that occurs after the closing of a Subsequent Financing at a rate of 80% of the purchase price paid by investors in the Subsequent Financing. The notes automatically convert at the earlier occurrence of (i) maturity or (ii) Qualified Financing including any accrued and unpaid interest, at a rate as described above. The Company has granted the note holders a security interest in all the Company's assets and the assets of APDN (B.V.I.) Inc., the Company's wholly-owned subsidiary.

Subsequent Financing is defined as the issuance and sale by the Company or an affiliate thereof of securities that do not qualify as Qualified Financing. Qualified Financing is defined as the issuance and sale by the Company or an affiliate thereof of equity or debt securities in a single transaction that results in gross proceeds of (before transaction fees and expenses) equal to or in excess of $10,000,000.

In accordance with ASC 470-20, the Company recognized an embedded beneficial conversion feature present in the notes. The Company allocated a portion of the proceeds equal to the intrinsic value of that feature to additional paid-in capital. The Company recognized and measured an aggregate of $678,774 of the proceeds, which is equal to the intrinsic value of the embedded beneficial conversion feature, to additional paid-in capital and a discount against the notes. The debt discount attributed to the beneficial conversion feature is amortized over the notes' maturity period (one year) as interest expense.

The Company recorded the intrinsic value of the embedded beneficial conversion feature ($678,774) to debt discount which will be amortized to interest expense over the term of the notes.

On January 7, 2011, upon the completion of a Subsequent Financing, the above described conversion rate changed from $0.04405 to $0.37104 with an extended due date from July 15, 2011 to January 7, 2012 on $1,550,000 of the $2,000,000 issued senior convertible promissory notes. All other terms are remaining the same. Although the conversion rate of the remaining $450,000 senior secured convertible promissory notes remained the same, the due date was extended also to January 7, 2012. In conjunction with the conversion rate and term modifications of the $1,550,000 senior secured convertible promissory notes, the Company wrote off the remaining unamortized debt discount of $331,332 to operations. See below discussion of the restructured senior secured convertible promissory notes.

Amortization of $70,102 was recorded for the year ended September 30, 2011 for the remaining $450,000 senior secured convertible promissory note.

10% Senior Secured Convertible Promissory Notes dated November 19, 2010

On November 19, 2010, the Company issued an aggregate of $350,000 in principal amount of senior secured convertible notes bearing interest at a rate of 10% per annum to "accredited investors," as defined in regulations promulgated under the Securities Act. The notes are convertible, in whole or in part, at any time, at the option of the noteholders, into either (A) such number of shares of the Company's common stock, $0.001 par value per share, determined by dividing (i) the principal amount of each note, together with any and all accrued and unpaid interest and penalties, by (ii) a conversion price of $ 0.032825817, which is equal to a 20% discount to the average volume, weighted average price of our common stock for the ten trading days prior to issuance (the "Common Conversion Price") or (B) securities issued in any Subsequent Financing ("Subsequent Securities") at a conversion price equal to 80% of the price per Subsequent Security paid by investors for Subsequent Securities in a Subsequent Financing (the "Subsequent Financing Price"). A "Subsequent Financing" is the sale by the Company or an affiliate thereof of securities at any time after November 19, 2010 and prior to the earlier of (i) a Qualified Financing or (ii) November 19, 2011. A noteholder may convert its notes in whole in connection with any one Subsequent Financing or in part in connection with one or more Subsequent Financings. The notes shall be automatically converted upon the earlier of (I) November 19, 2011 and (II) the completion of a Qualified Financing at the election of each noteholder into either (A) shares of common stock at the Common Conversion Price, (B) Subsequent Securities at a conversion price equal to 80% of the Subsequent Financing Price, or (C) securities issued in a Qualified Financing (the "Qualified Financing Securities") at a conversion price equal to 80% of the price per Qualified Financing Security paid by investors for the Qualified Financing Securities in the Qualified Financing.

A "Qualified Financing" is the sale by the Company or an affiliate thereof of securities resulting in gross proceeds (before transaction fees and expenses) in a single transaction equal to or in excess of $10 million. The notes bear interest at the rate of 10% per annum and are due and payable in full on November 19, 2011.

Until the principal and accrued but unpaid interest under the notes are paid in full, or converted into Conversion Shares pursuant to their terms, the Company's obligations under the notes will be secured by a lien on all assets of the Company and the assets of APDN (B.V.I.) Inc., the Company's wholly-owned subsidiary.

In accordance with ASC 470-20, the Company recognized an embedded beneficial conversion feature present in the notes. The Company allocated a portion of the proceeds equal to the intrinsic value of that feature to additional paid-in capital. The Company recognized and measured an aggregate of $76,494 of the proceeds, which is equal to the intrinsic value of the embedded beneficial conversion feature, to additional paid-in capital and a discount against the notes. The debt discount attributed to the beneficial conversion feature is amortized over the notes' maturity period (one year) as interest expense. Amortization of $66,015 was recorded for the year ended September 30, 2011.

10% Senior Secured Convertible Promissory Note dated November 30, 2010

On November 30, 2010, the Company issued a $750,000 principal amount senior secured convertible note bearing interest at a rate of 10% per annum to an "accredited investor," as defined in regulations promulgated under the Securities Act. The note is convertible, in whole or in part, at any time, at the option of the noteholder, into either (A) such number of shares of the Company's common stock, $0.001 par value per share, determined by dividing (i) the principal amount of each note, together with any and all accrued and unpaid interest and penalties, by (ii) a conversion price of $ 0.03088, which is equal to a 20% discount to the average volume, weighted average price of our common stock for the ten trading days prior to issuance (the "Common Conversion Price") or (B) securities issued in any Subsequent Financing ("Subsequent Securities") at a conversion price equal to 80% of the price per Subsequent Security paid by investors for Subsequent Securities in a Subsequent Financing (the "Subsequent Financing Price"). A "Subsequent Financing" is the sale by the Company or an affiliate thereof of securities at any time after November 30, 2010 and prior to the earlier of (i) a Qualified Financing or (ii) November 30, 2011. The noteholder may convert its note in whole in connection with any one Subsequent Financing or in part in connection with one or more Subsequent Financings. The note shall be automatically converted upon the earlier of (I) November 30, 2011 and (II) the completion of a Qualified Financing at the election of the noteholder into either (A) shares of common stock at the Common Conversion Price, (B) Subsequent Securities at a conversion price equal to 80% of the Subsequent Financing Price, or (C) securities issued in a Qualified Financing (the "Qualified Financing Securities") at a conversion price equal to 80% of the price per Qualified Financing Security paid by investors for the Qualified Financing Securities in the Qualified Financing.

A "Qualified Financing" is the sale by the Company or an affiliate thereof of securities resulting in gross proceeds (before transaction fees and expenses) in a single transaction equal to or in excess of $10 million. The note bears interest at the rate of 10% per annum and is due and payable in full on November 30, 2011.

Until the principal and accrued but unpaid interest under the note is paid in full, or converted into Conversion Shares pursuant to its terms, the Company's obligations under the note will be secured by a lien on all assets of the Company and the assets of APDN (B.V.I.) Inc., the Company's wholly-owned subsidiary.

In accordance with ASC 470-20, the Company recognized an embedded beneficial conversion feature present in the note. The Company allocated a portion of the proceeds equal to the intrinsic value of that feature to additional paid-in capital. The Company recognized and measured an aggregate of $270,078 of the proceeds, which is equal to the intrinsic value of the embedded beneficial conversion feature, to additional paid-in capital and a discount against the note. The debt discount attributed to the beneficial conversion feature is amortized over the note's maturity period (one year) as interest expense.

The Company recorded the intrinsic value of the embedded beneficial conversion feature ($270,078) to debt discount which will be amortized to interest expense over the term of the note. Amortization of $224,942 was recorded for the year ended September 30, 2011.

10% Senior Secured Convertible Promissory Note dated January 7, 2011

On January 7, 2011, the Company issued a $750,000 principal amount senior secured convertible note bearing interest at a rate of 10% per annum to an "accredited investor," as defined in regulations promulgated under the Securities Act. The note is convertible, in whole or in part, at any time, at the option of the noteholder, into either (A) such number of shares of the Company's common stock, $0.001 par value per share, determined by dividing (i) the principal amount of each note, together with any and all accrued and unpaid interest and penalties, by (ii) a conversion price of $ 0.05529, which is equal to a 20% discount to the average volume, weighted average price of our common stock for the ten trading days prior to issuance (the "Common Conversion Price") or (B) securities issued in any Subsequent Financing ("Subsequent Securities") at a conversion price equal to 80% of the price per Subsequent Security paid by investors for Subsequent Securities in a Subsequent Financing (the "Subsequent Financing Price"). A "Subsequent Financing" is the sale by the Company or an affiliate thereof of securities at any time after January 7, 2011 and prior to the earlier of (i) a Qualified Financing or (ii) January 7, 2012. The noteholder may convert its note in whole in connection with any one Subsequent Financing or in part in connection with one or more Subsequent Financings. The note shall be automatically converted upon the earlier of (I) January 7, 2012 and (II) the completion of a Qualified Financing at the election of the noteholder into either (A) shares of common stock at the Common Conversion Price, (B) Subsequent Securities at a conversion price equal to 80% of the Subsequent Financing Price, or (C) securities issued in a Qualified Financing (the "Qualified Financing Securities") at a conversion price equal to 80% of the price per Qualified Financing Security paid by investors for the Qualified Financing Securities in the Qualified Financing.

A "Qualified Financing" is the sale by the Company or an affiliate thereof of securities resulting in gross proceeds (before transaction fees and expenses) in a single transaction equal to or in excess of $10 million. The note bears interest at the rate of 10% per annum and is due and payable in full on January 7, 2012.

Until the principal and accrued but unpaid interest under the note is paid in full, or converted into Conversion Shares pursuant to its terms, the Company's obligations under the note will be secured by a lien on all assets of the Company and the assets of APDN (B.V.I.) Inc., the Company's wholly-owned subsidiary.

In accordance with ASC 470-20, the Company recognized an embedded beneficial conversion feature present in the note. The Company allocated a portion of the proceeds equal to the intrinsic value of that feature to additional paid-in capital. The Company recognized and measured an aggregate of $240,233 of the proceeds, which is equal to the intrinsic value of the embedded beneficial conversion feature, to additional paid-in capital and a discount against the note. The debt discount attributed to the beneficial conversion feature is amortized over the note's maturity period (one year) as interest expense.

The Company recorded the intrinsic value of the embedded beneficial conversion feature ($240,233) to debt discount which will be amortized to interest expense over the term of the note. Amortization of $175,074 was recorded for the year ended September 30, 2011.

10% Senior Secured Convertible Promissory Notes issued on July 15, 2010, modified on January 7, 2011

On January 7, 2011, the Company modified previously issued senior secured promissory notes initially dated July 15, 2010 totaling $1,550,000 in principal amount bearing interest at a rate of 10% per annum to "accredited investors," as defined in regulations promulgated under the Securities Act. The notes are convertible, in whole or in part, at any time, at the option of the noteholders, into either (A) such number of shares of the Company's common stock, $0.001 par value per share, determined by dividing (i) the principal amount of each note, together with any and all accrued and unpaid interest and penalties, by (ii) a conversion price of $ 0.037104 or (B) securities issued in any Subsequent Financing ("Subsequent Securities") at a conversion price equal to 80% of the price per Subsequent Security paid by investors for Subsequent Securities in a Subsequent Financing (the "Subsequent Financing Price"). A "Subsequent Financing" is the sale by the Company or an affiliate thereof of securities at any time after January 7, 2011 and prior to the earlier of (i) a Qualified Financing or (ii) January 7, 2012. A noteholder may convert its note in whole in connection with any one Subsequent Financing or in part in connection with one or more

Subsequent Financings. The notes shall be automatically converted upon the earlier of (I) January 7, 2012 and (II) the completion of a Qualified Financing at the election of the noteholder into either (A) shares of common stock at the Common Conversion Price, (B) Subsequent Securities at a conversion price equal to 80% of the Subsequent Financing Price, or (C) securities issued in a Qualified Financing (the "Qualified Financing Securities") at a conversion price equal to 80% of the price per Qualified Financing Security paid by investors for the Qualified Financing Securities in the Qualified Financing. The effect of this refinancing was recognized as "debt modification" in the financial statements.

A "Qualified Financing" is the sale by the Company or an affiliate thereof of securities resulting in gross proceeds (before transaction fees and expenses) in a single transaction equal to or in excess of $10 million. The notes bear interest at the rate of 10% per annum and is due and payable in full on January 7, 2012.

Until the principal and accrued but unpaid interest under the notes are paid in full, or converted into Conversion Shares pursuant to their terms, the Company's obligations under the notes will be secured by a lien on all assets of the Company and the assets of APDN (B.V.I.) Inc., the Company's wholly-owned subsidiary.

In accordance with ASC 470-20, the Company recognized an embedded beneficial conversion feature present in the notes. The Company allocated a portion of the proceeds equal to the intrinsic value of that feature to additional paid-in capital. The Company recognized and measured an aggregate of $1,482,122 of the proceeds, which is equal to the intrinsic value of the embedded beneficial conversion feature, to additional paid-in capital and a discount against the notes. The debt discount attributed to the beneficial conversion feature is amortized over the notes' maturity period (one year) as interest expense.

The Company recorded the intrinsic value of the embedded beneficial conversion feature ($1,482,122) to debt discount which will be amortized to interest expense over the term of the note. Amortization of $1,214,668 was recorded for the year ended September 30, 2011.

During the year ended September 30, 2011, the Company issued an aggregate of 1,562,725 shares of common stock in settlement of the $53,000 of convertible notes and related interest.

4% Senior Secured Convertible Promissory Note issued on July 11, 2011

On June 11, 2011, the Company issued a $250,000 related party convertible promissory note due July 11, 2012 with interest at 4% per annum due upon maturity. The note is convertible at any time prior to maturity, at the holder's option, into shares of our common stock at $0.0585 per share. At maturity, the note, including any accrued and unpaid interest, is automatically convertible at $0.0585 per share. The Company has granted the note holder a security interest in all the Company's assets.

The embedded conversion feature present in the note equaled the fair value of the underlying common stock at the date of issuance, therefore the Company did record a beneficial conversion feature.

**NOTE E - RELATED PARTY TRANSACTIONS**

The Company's current and former officers and shareholders have advanced funds to the Company for travel related and working capital purposes. No formal repayment terms or arrangements existed. There were $0 and $50,000 advances due at September 30, 2011 and 2010, respectively.

During the years ended September 30, 2011 and 2010, the Company's Chief Executive Officer, or entities controlled by the Company's Chief Executive Officer, had advanced funds to the Company in the form of convertible promissory notes for working capital purposes (see Note D). Interest expense related to these notes amounted to $24,719 and $76,891 for the years ended September 30, 2011 and 2010, respectively.

During the year ended September 30, 2010, the Company issued 41,720,685 shares of common stock in exchange for settlement of an aggregate of $1,500,000 related party convertible promissory notes and accrued interest.

The Company has consulting agreements with outside contractors, certain of whom are also company stockholders. The agreements are generally month to month.

**NOTE F - CAPITAL STOCK**

The Company is authorized to issue 800,000,000 shares of common stock, with a $0.001 par value per share, as the result of a vote of stockholders conducted on June 29, 2010 which effected an increase in the authorized shares of common stock from 410,000,000 to 800,000,000. 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, 2011 and 2010, there were 473,325,859 and 346,366,244 shares of common stock issued and outstanding, respectively.

Preferred and Common Stock Transactions During the Year Ended September 30, 2010:

During the year ended September 30, 2010, the Company issued an aggregate of 15,297,286 shares valued at $777,837 for current and future consulting services.

Preferred and Common Stock Transactions During the Year Ended September 30, 2011:

During the year ended September 30, 2011, the Company issued an aggregate of 888,813 shares valued at $65,000 for future consulting services.

During the year ended September 30, 2011, the Company issued 15,000,000 shares valued at $877,500 as officer compensation.

During the year ended September 30, 2011, the Company has expensed $502,082 related to stock based compensation.

**NOTE G - 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 sale of the Company's common stock.

| Exercise Prices | Number Outstanding | Warrants Outstanding Remaining Contractual Life (Years) | Weighted Average Exercise Price | Weighted Average Exercisable | Exercisable Weighted Average Exercise Price |
|---|---|---|---|---|---|
| $ 0.03088 | 2,428,756 | 6.17 | $ 0.3088 | 2,428,756 | $ 0.3088 |
| $ 0.03283 | 533,116 | 6.14 | $ 0.3283 | 533,116 | $ 0.3283 |
| $ 0.04 | 9,000,000 | 3.92 | $ 0.04 | 3,000,000 | $ 0.04 |
| $ 0.04405 | 3,007,946 | 5.79 | $ 0.04405 | 3,007,946 | $ 0.04405 |
| $ 0.04750 | 7,578,978 | 6.79 | $ 0.04750 | 7,578,978 | $ 0.04750 |
| $ 0.05529 | 1,356,484 | 6.28 | $ 0.05529 | 1,356,484 | $ 0.05529 |
| $ 0.06 | 12,000,000 | 3.38 | $ 0.06 | 7,000,000 | $ 0.06 |
| $ 0.07 | 200,000 | 0.46 | $ 0.07 | 200,000 | $ 0.07 |
| $ 0.09 | 9,900,000 | 4.93 | $ 0.09 | 9,900,000 | $ 0.09 |
| $ 0.10 | 1,500,000 | 1.49 | $ 0.10 | 1,500,000 | $ 0.10 |
| $ 0.50 | 10,700,000 | 1.24 | $ 0.50 | 10,700,000 | $ 0.50 |
| | 58,205,280 | | | 47,205,280 | |

Transactions involving warrants are summarized as follows:

| | Number of Shares | Weighted Average Price Per Share |
|---|---|---|
| Balance, September 30, 2009 | 64,820,500 | $ 0.43 |
| Granted | 22,007,946 | 0.05 |
| Exercised | — | |
| Canceled or expired | (17,620,500) | (0.73) |
| Balance at September 30, 2010 | 69,207,946 | $ 0.237 |
| Granted | 11,897,334 | 0.044 |
| Exercised | — | — |
| Canceled or expired | (22,900,000) | (0.384) |
| Balance, September 30, 2011 | 58,205,280 | $ 0.140 |

On April 29, 2010, warrants totaling 10,000,000 were issued in connection with services. The warrants are exercisable for five years from the date of issuance at an exercise price of $0.06 per share with 25% vesting immediately, 25% on October 29, 2010, 25% on April 29, 2011 and 25% on October 29, 2011. The fair values of the warrants vesting during the nine month period ended June 30, 2011 was determined using the Black-Scholes Option Pricing Model with the following assumptions: dividend yield $-0-, volatility of 170.72% and risk free rate from 1.17%.

The determined fair value of $136,988 is charged ratably to current period operations. During the years ended September 30, 2011 and 2010, $21,709 and $115,279 was charged to operations, respectively.

On July 15, 2010, warrants totaling 3,007,946 were issued in connection with services provided in connection with the issuance of convertible notes. The warrants are exercisable for seven years from the date of issuance at an exercise price of $0.04405 per share. The fair values of the warrants were determined using the Black-Scholes Option Pricing Model with the following assumptions: dividend yield $-0-, volatility of 173.55% and risk free rate from 2.43%.

The determined fair value of $174,429 is charged ratably to current period operations over one year. During the years ended September 30, 2011 and 2010, $137,154 and $36, 497 was charged to operations, respectively.

On August 30, 2010, warrants totaling 10,000,000 were issued in connection with services. The warrants are exercisable for five years from the date of issuance at an exercise price of $0.04 per share with 33% vesting immediately and 67% upon achieving defined milestones. The fair value of the vested warrants was determined using the Black-Scholes Option Pricing Model with the following assumptions: dividend yield $-0-, volatility of 173.24% and risk free rate from 1.39%.

The determined fair value of $113,885 is charged ratably to current period operations. During the year ended September 30, 2011 and 2010, $85,180 and 28,705 was charged to operations, respectively.

In the month of November 2010, warrants totaling 2,961,872 were issued in connection with services provided in connection with the issuance of convertible notes. The warrants are exercisable for seven years from the date of issuance at exercise prices from $0.03088 to $0.03283 per share. The fair values of the warrants were determined using the Black-Scholes Option Pricing Model with the following assumptions: dividend yield $-0-, volatility of 169.06% to 169.21% and risk free rate from 2.16 to 2.20%.

The determined fair value of $120,840 is charged ratably to current period operations over one year. During the year ended September 30, 2011, $101,989 was charged to operations.

In the month of January 2011, warrants totaling 1,356,484 were issued in connection with services provided in connection with the issuance of convertible notes. The warrants are exercisable for seven years from the date of issuance at exercise price of $0.05529 per share. The fair values of the warrants were determined using the Black-Scholes Option Pricing Model with the following assumptions: dividend yield $-0-, volatility of 170.33% and risk free rate of 2.69%.

The determined fair value of $97,131 is charged ratably to current period operations over one year. During the year ended September 30, 2011, $70,653 was charged to operations.

During the month of July 2011, warrants totaling 7,578,978 were issued in connection with the sale of the Company's common stock. The warrants are exercisable for seven years from the date of issuance at an exercise price of $0.04750 per share.

On August 12, 2011, the Company extended the expiration date of previously issued warrants exercisable at $0.09 per share to consultants. The warrants were extended from September 1, 2011 to September 1, 2016. The change in fair value of the options of $194,424 was charged to current period operations and was determined using the Black-Sholes Option Pricing model with the following assumptions: dividend yield $-0-, volatility of 162.03% and risk free rate from 0.01% to 0.32%.

Employee Stock Options

On January 26, 2005, the Board of Directors, and on February 15, 2005, the holders of a majority of the outstanding shares of common stock of the Company approved the 2005 Incentive Stock Plan and authorized the issuance of 16,000,000 shares of common stock as stock awards and stock options thereunder. On May 16, 2007, at the annual meeting of stockholders, the holders of a majority of the outstanding shares of common stock of the Company approved an increase in the number of shares subject to the 2005 Incentive Stock Plan to 20,000,000 shares of common stock. On June 17, 2008, the Board of Directors unanimously adopted an amendment to the 2005 Incentive Stock Plan that increased the total number of shares of common stock issuable pursuant to the 2005 Incentive Stock Plan from a total of 20,000,000 shares to a total of 100,000,000 shares, which was approved by our stockholders at the 2008 annual meeting of stockholders held on December 16, 2008. In connection with the share increase amendment, the Board of Directors granted and we issued options to purchase a total of 37,670,000 shares at an exercise price of $0.11 to certain key employees and non-employee directors under the 2005 Incentive Stock Plan, including 17,000,000, 5,000,000 and 7,000,000 to James A. Hayward, Kurt H. Jensen and Ming-Hwa Liang, respectively. The options granted to our key employees and non-employee directors vested with respect to 25% of the underlying shares on the date of grant and the remaining vest ratably each anniversary thereafter until fully vested on the third anniversary of the date of grant.

On May 27, 2010, our named executive officers elected to forfeit certain stock options to purchase up to 29 million shares of our Common Stock at an exercise price of $0.11 that were previously granted to them under the 2005 Incentive Stock Plan. In lieu of the forfeited options, our Board of Directors granted new stock options to such named executive officers to purchase up to 29 million shares of our common stock at an exercise price of $0.05 under the 2005 Stock Incentive Plan which are fully vested and became exercisable on June 29, 2010 following approval by our stockholders to amend our certificate of incorporation to increase our authorized shares of common stock.

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

The 2005 Incentive Stock Plan is designed to retain directors, executives, and selected employees and consultants by rewarding them for making contributions to our success with an award of options to purchase shares of our common stock. As of September 30, 2011, a total of 9,675,000 shares have been issued and options to purchase 120,650,000 shares have been granted under the 2005 Incentive Stock Plan. The exercisability of options to purchase 40,000,000 shares of Common Stock is conditioned upon stockholder approval at the 2012 annual stockholders meeting of an amendment to the Company's 2005 Incentive Stock Plan increasing the aggregate limits on the shares of Common Stock issuable under the Plan from 100,000,000 to 350,000,000 and the number of shares of Common Stock that can be covered by awards made to any participant in any calendar year from 25,000,000 to 50,000,000 shares, and if the amendment is not so approved, this option shall expire.

On July 11, 2011, our Board of Directors granted an aggregate of 50,000,000 nonstatutory stock options under the 2005 Incentive Stock Plan to key executive officers. The options granted to the key executive officers vest as follows: 25% immediately, 37.5% on the first anniversary and 37.5% on the second anniversary with vesting acceleration dependent on defined revenue targets. The exercisability of options to purchase 40,000,000 shares of Common Stock is conditioned upon stockholder approval at the 2012 annual stockholders meeting of an amendment to the Company's 2005 Incentive Stock Plan increasing the aggregate limits on the shares of Common Stock issuable under the Plan from 100,000,000 to 350,000,000 and the number of shares of Common Stock that can be covered by awards made to any participant in any calendar year from 25,000,000 to 50,000,000 shares, and if the amendment is not so approved, this option shall expire.

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 2005 Incentive Stock Plan:

| Options Outstanding | | | | Options Exercisable | |
|---|---|---|---|---|---|
| Exercise Prices | Number Outstanding | Weighted Average Remaining Contractual Life (Years) | Weighted Average Exercise Price | Number Exercisable | Weighted Average Exercise Price |
| $ 0.05 | 29,000,000 | 3.66 | $ 0.05 | 29,000,000 | $ 0.05 |
| $ 0.0585 | 50,000,000 | 6.79 | 0.0585 | 12,500,000 | 0.0585 |
| $ 0.06 | 30,000,000 | 3.75 | $ 0.06 | 15,000,000 | $ 0.06 |
| $ 0.07 | 2,750,000 | 3.55 | $ 0.07 | 500,000 | $ 0.07 |
| $ 0.08 | 2,000,000 | 4.27 | $ | - | $ - |
| $ 0.09 | 1,500,000 | 4.93 | $ 0.09 | 1,500,000 | $ 0.09 |
| $ 0.11 | 5,400,000 | 1.72 | $ 0.11 | 5,400,000 | $ 0.11 |
| | 120,650,000 | | $ 0.06 | 63,900,000 | $ 0.06 |

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

| | Number of Shares | Weighted Average Exercise Price Per Share |
|---|---|---|
| Outstanding at October 1, 2009 | 38,920,000 | $ 0.11 |
| Granted | 59,000,000 | 0.06 |
| Exercised | - | |
| Cancelled or expired | (31,020,000) | (0.11) |
| Outstanding at September 30, 2010 | 66,900,000 | $ 0.06 |
| Granted | 53,750,000 | 0.06 |
| Exercised | - | |
| Canceled or expired | - | |
| Outstanding at September 30, 2011 | 120,650,000 | $ 0.06 |

On December 13, 2010, the Company granted 1,500,000 options to purchase the Company's common stock at an exercise price of $0.07 per share for five years to an employee with vesting at 25% each anniversary for the next four years. The fair value of options was determined using the Black Scholes Option Pricing Model with the following assumptions: dividend yield $-0-, volatility of 171.29% and risk free rate of 0.98%.

On January 4, 2011, the Company granted 2,000,000 options to purchase the Company's common stock at an exercise price of $0.08 per share for five years to an employee with vesting at 25% each anniversary for the next four years. The exercisability of options to purchase 40,000,000 shares of Common Stock is conditioned upon stockholder approval at the 2012 annual stockholders meeting of an amendment to the Company's 2005 Incentive Stock Plan increasing the aggregate limits on the shares of Common Stock issuable under the Plan from 100,000,000 to 350,000,000 and the number of shares of Common Stock that can be covered by awards made to any participant in any calendar year from 25,000,000 to 50,000,000 shares, and if the amendment is not so approved, this option shall expire. The fair value of options was determined using the Black-Scholes Option Pricing Model with the following assumptions: dividend yield $-0-, volatility of 170.62% and risk free rate of 2.01%.

On July 11, 2011, the Company granted an aggregate of 50,000,000 options to purchase the Company's common stock at an exercise price of $0.0585 per share for seven years to key officers with vesting as follows: 25% immediately, 37.5% each anniversary for the next two years with vesting acceleration dependent on defined revenue targets. The options are issuable subject to stockholder approval. The fair value of options was determined using the Black-Scholes Option Pricing Model with the following assumptions: dividend yield $-0-, volatility of 162.37% and risk free rate of 2.22%.

On August 1, 2011, the Company granted 250,000 options to purchase the Company's common stock at an exercise price of $0.07 per share for five years to an employee with vesting at 25% each anniversary for the next four years. The fair value of options was determined using the Black-Scholes Option Pricing Model with the following assumptions: dividend yield $-0-, volatility of 162.43% and risk free rate of 1.32%.

On August 12, 2011, the Company extended the expiry date of previously issued options exercisable at $0.09 per share to key officers. The fully vested options were extended from September 1, 2011 to September 1, 2016. The change in fair value of the options of $544,386 was charged to current period operations and was determined using the Black-Sholes Option Pricing model with the following assumptions: dividend yield $-0-, volatility of 162.03% and risk free rate from 0.01% to 0.32%.

The Company recorded $1,485,068 and $2,545,305 as stock compensation expense for the years ended September 30, 2011 and 2010, respectively.

**NOTE H – INCOME TAXES**

The Company has adopted Accounting Standards Codification subtopic 740-10, 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 bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse.

At September 30, 2011, the Company has available for federal income tax purposes a net operating loss carryforward of approximately $34,000,000, expiring in the year 2031 that may be used to offset future taxable income. The Company has provided a valuation reserve against the full amount of the net operating loss benefit, since in the opinion of management based upon the earnings history of the Company; it is more likely than not that the benefits will not be realized. Due to significant changes in the Company's ownership, the future use of its existing net operating losses may be limited. Components of deferred tax assets as of September 30, 2011 are as follows:

| | | |
|---|---|---|
| Non current: | | |
| Net operating loss carryforward | $ | 34,000,000 |
| Valuation allowance | | (34,000,000) |
| Net deferred tax asset | $ | — |

**NOTE I- LOSS PER SHARE**

The following table presents the computation of basic and diluted loss per share:

| | For the Year Ended September 30, 2011 | For the Year Ended September 30, 2010 |
|---|---|---|
| Loss available for common shareholders | $ (10,515,124) | $ (7,909,600) |
| Basic loss per share | $ (0.03) | $ (0.03) |
| Weighted average common shares outstanding-basic | 376,833,809 | 300,352,913 |
| Weighted average common shares outstanding-fully diluted | 376,833,809 | 300,352,913 |

During the years ended September 30, 2011 and 2010, common stock equivalents are not considered in the calculation of the weighted average number of common shares outstanding because they would be anti-dilutive, thereby decreasing the net loss per common share.

**NOTE J- COMMITMENTS AND CONTINGENCIES**

Operating leases

The Company leases office space under operating lease in Stony Brook, New York for its corporate use from an entity controlled by a significant former shareholder, expiring in October 2011 renewable annually thereafter. Total lease rental expenses for the years ended September 30, 2011 and 2010 were $144,118 and $93,433, respectively.

Employment and Consulting Agreements

Employment agreements

On July 11, 2011, the Company's Board of Directors approved the terms of employment for each of James A. Hayward, the Company's Chief Executive Officer, and Kurt H. Jensen, the Company's Chief Financial Officer.

In connection with his employment agreement, Dr. Hayward was granted options to purchase 40 million shares of the Company's Common Stock at an exercise price per share equal to the average of the bid and asked prices of the Company's Common Stock on the Over The Counter (OTC) Bulletin Board on the date of grant. The option will vest as follows: 25% on the grant date, and 37.5% on each of the next two anniversaries of the grant date, subject to Dr. Hayward's continuous employment. If Company revenues for any fiscal quarter increase by more than $1 million over the prior fiscal quarter, then the vesting date for the next 37.5% tranche will be accelerated. Exercisability of options for the 40 million shares will be conditioned upon stockholder approval of an amendment of the Company's 2005 Incentive Stock Plan made by the Board of Directors increasing the aggregate and individual limits on the shares of Company Common Stock issuable under the Plan. The Company also granted 15 million shares of the Company's Common Stock to Dr. Hayward.

In connection with his employment agreement, Mr. Jensen was granted options to purchase 10 million shares of the Company's Common Stock at an exercise price per share equal to the average of the bid and asked prices of the Company's Common Stock on the Over The Counter (OTC) Bulletin Board on the date of grant. The option will vest as follows: 25% on the grant date, and 37.5% on each of the next two anniversaries of the grant date, subject to Mr. Jensen's continuous employment. If Company revenues for any fiscal quarter increase by more than $1 million over the prior fiscal quarter, then the vesting date for the next 37.5% tranche will be accelerated.

The Company has consulting agreements with outside contractors, certain of whom are also Company stockholders. The Agreements are generally month to month.

Litigation

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.

*Demodulation, Inc. v. Applied DNA Sciences, Inc., et al.* (Civil Action No. - 2:11-cv-00296-WJM-MF, District of New Jersey):

On May 18, 2011, the Company was served with a complaint in a lawsuit brought by Demodulation, Inc. against the Company, Corning Incorporated, Alfred University, and Alfred Technology Resources, Inc. On July 8, 2011, the Company filed a motion to dismiss the complaint. In response, on August 3, 2011, Demodulation, Inc. filed an amended complaint. Demodulation, Inc. alleges that it was unable to bring its microwire technology to market due to the wrongful acts of defendants, who allegedly conspired to steal Demodulation, Inc.'s trade secrets and other intellectual property and to interfere in its business opportunities. Of the 17 claims alleged in the amended complaint, five are asserted against the Company, including alleged misappropriation of trade secrets, antitrust violations, civil RICO, and patent infringement. The Company believes these claims are without merit. On September 10, 2011, Alfred University filed a motion to transfer the action from the District of New Jersey to the Western District of New York; the Court has not yet decided the motion. Pursuant to an order of the Court, once the transfer motion is decided, the Company intends to file a motion to dismiss the amended complaint for failure to state a claim and on other grounds. The Company intends to vigorously defend the action.

**NOTE K - GOING CONCERN**

The accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. As shown in the accompanying consolidated financial statements during the year ended September 30, 2011, the Company has a negative working capital of $1.5 million, incurred a net loss of $10.5 million and has a capital deficiency of $1.0 million. These factors among others may indicate that the Company will be unable to continue as a going concern for a reasonable period of time.

The Company's existence is dependent upon management's ability to develop profitable operations. Management is devoting substantially all of its efforts to developing DNA embedded biotechnology security solutions in the United States and Europe and there can be no assurance that the Company's efforts will be successful and no assurance can be given that management's actions will result in profitable operations or the resolution of its liquidity problems. The accompanying consolidated financial statements do not include any adjustments that might result should the Company be unable to continue as a going concern.

In order to improve the Company's liquidity, the Company's management anticipates pursuing additional financing through discussions with investment bankers and private investors. There can be no assurance the Company will be successful in its effort to secure additional financing.

**NOTE L – SUBSEQUENT EVENTS**

In accordance with FASB ASC 855, "Subsequent Events," the Company has evaluated subsequent events through the date of filing.

On October 26, 2011, the Company issued 1,497,826 shares of common stock in settlement of $50,000.00 principal amount convertible note dated July 15, 2010 and accrued interest.

On November 2, 2011, the Company issued 8,342,081 shares of common stock in settlement of $250,000.00 principal amount convertible note dated November 19, 2010 and accrued interest.

On November 19, 2011, the Company issued 3,351,021 shares of common stock in settlement of $100,000.00 principal amount convertible note dated November 19, 2010 and accrued interest.

On November 30, 2011, the Company issued 26,716,321 shares of common stock in settlement of $750,000.00 principal amount convertible note dated November 30, 2010 and accrued interest.

On November 30, 2011, the Board of Directors granted each of the Company's six non-employee directors a 5 year stock option to purchase 954,000 shares of the Company's Common Stock at $0.068 per share and with a fair value of $60,000 determined using the Black-Scholes Option Pricing Model. The stock options will be fully vested on the first anniversary of the date of grant. Exercisability of the options is conditioned upon stockholder approval of an amendment to the Company's 2005 Incentive Stock Plan increasing the aggregate limits on the shares of Common Stock issuable under the Plan from 100,000,000 to 350,000,000 at the 2012 annual stockholders meeting.

On December 6, 2011, the Board of Directors granted one of the Company's six non-employee directors a fully vested 5 year stock option to purchase 158,700 shares of the Company's Common Stock at $0.065 per share (the closing price of the Company's common stock on the Over The Counter (OTC) Bulletin Board on the date of grant) and with a fair value of $10,000 determined using the Black-Scholes Option Pricing Model.

On December 6, 2011, the Board of Directors granted one of the Company's six non-employee directors a fully vested 5 year stock option to purchase 476,125 shares of the Company's Common Stock at $0.065 per share (the closing price of the Company's common stock on the Over The Counter (OTC) Bulletin Board on the date of grant) and with a fair value of $30,000 determined using the Black-Scholes Option Pricing Model.

On December 6, 2011, the Board of Directors granted Kurt H. Jensen, the Chief Financial Officer of the Company, a cash bonus of $50,000.

**EXHIBIT 10.28**

**SUBSCRIPTION AGREEMENT**

Applied DNA Sciences, Inc.
25 Health Sciences Drive, Suite 113
Stony Brook, New York 11790

Gentlemen and Ladies:

The undersigned (the "Subscriber") hereby subscribes for _____ (___) shares (the "Shares") of common stock, par value $0.001 per share ("Common Stock") of Applied DNA Sciences, Inc., a Delaware corporation (the "Company") at a cash purchase price per share of $0.0475, for an aggregate purchase price of $_____.

1 . **Subscription.** Subject to the terms and conditions hereof, the Subscriber agrees to pay $_____ by check or wire transfer of immediately available funds as consideration for the Subscriber's Shares. The Subscriber tenders herewith a check made payable at the direction of the Company or wire transfer, in the amount of $_____. The Subscriber acknowledges and agrees that this subscription is irrevocable by the Subscriber but is subject to acceptance by the Company. The Subscriber understands and agrees that a placement fee of up to 7% of the proceeds of this subscription and certain expenses may be paid by the Company and warrants to purchase shares of the Company's Common Stock equal to 8% of the Shares may be issued by the Company, to a placement agent in connection with this subscription ("Placement Agent").

2. **Subscription Compliance.** The Subscriber agrees that this subscription is subject to the following terms and conditions:

The Company shall have the right, in its sole discretion, to: (i) accept or reject this subscription; (ii) determine whether this Subscription Agreement has been properly completed by the Subscriber and (iii) determine whether the Subscriber has met all of the Company's requirements for investment in the Shares. If the Company deems this subscription to be defective, deficient or otherwise non-compliant with the terms of this offering, the Subscriber's funds will be returned promptly to the Subscriber without interest or deduction.

**3. Anti-Dilution Protection.**

**a.** In the event that the Company issues shares of Common Stock to investors prior to December 31, 2011 at a cash purchase price per share less than $0.0475 (a "Subsequent Issuance"), the Company shall issue to the Subscriber such amount of additional shares of Common Stock such that the Subscriber will have received a total amount of shares of Common Stock equal to the amount of shares of Common Stock the Subscriber would have received if the cash purchase price per share pursuant to this Subscription Agreement was equal to the price paid per share of Common Stock by investors in the Subsequent Issuance (the "Adjusted Price Per Share"). For the avoidance of doubt, the number of additional shares of Common Stock to be issued by the Company to the Subscriber shall be the difference between the number of shares of Common Stock the Subscriber would have received at the Adjusted Price Per Share less the Shares purchased pursuant to this Subscription Agreement.

**b.** In the event the Company sells shares of its Common Stock or securities convertible into shares of Common Stock in a third party financing ("Offered Securities"), the Subscriber shall have the right to purchase that portion of the Offered Securities as the number of shares of Common Stock or securities convertible into Common Stock then held by Subscriber bears to the total number of shares of Common Stock of the Company on a fully-diluted basis ("Pro Rata Share"). Such purchase shall be at the price and on such other terms as shall have been or shall propose to have been issued to such third party investors which shall have been specified by the Company in writing or e-mail transmission delivered to Subscriber ("Notice"). Subscriber shall have ten (10) days subsequent to receipt of the Notice to notify the Company whether Subscriber chooses to purchase its Pro Rata Share (or portion thereof) of the Company's issuance. Such purchase, if any, shall be completed within five (5) days after Subscriber's notification to the Company. The Subscriber's rights in this section shall not apply to Common Stock issued as a stock dividend, shares of capital stock or securities convertible thereto issued to employees, officers, directors or consultants, securities issued pursuant to the acquisition of another entity by the Company by merger or purchase of substantially all of such entity's stock or assets if such acquisition is approved by the Board of Directors, any securities issued in connection with a strategic partnership, joint venture or other similar agreement approved by the Board of Directors, securities issued in connection with a bank loan or lease with a financial institution, or capital stock issued pursuant to convertible securities outstanding on the date hereof. The right set forth herein shall terminate when Subscriber no longer holds five percent (5%) of the then issued and outstanding shares of the Company's Common Stock (including on an as-converted basis any securities convertible into the Company's Common Stock).

**4. Receipt of Information.**

a. The Subscriber and Subscriber's purchaser representative, if any, have received a copy of the Company's most recent Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and current reports on Form 8-K, if any. The Subscriber, either alone or together with Subscriber's purchaser representative, if any, have such knowledge and experience in financial and business matters as to be able to evaluate the merits and risks of an investment in the Company.

b. The Subscriber and Subscriber's representative, if any, have had the opportunity to ask questions of and receive answers from the Company concerning the terms and conditions of the offering of the Shares by the Company and to obtain any additional information Subscriber has requested which is necessary to verify the accuracy of the information furnished to the Subscriber concerning the Company and such offering.

5. **Litigation Disclosure**.

The Company was recently served with a complaint in a lawsuit brought by Demodulation, Inc. against the Company, Corning Incorporated, Alfred University, Alfred Technology Resources, Inc. and certain unnamed individuals and corporations in the United States District Court of New Jersey. The complaint alleges ten claims, only two of which are asserted against the Company. In the complaint, Demodulation alleges that it. was unable to bring its microwire technology to market due to the wrongful acts of defendants, who allegedly conspired to steal Demodulation, Inc.'s trade secrets and other intellectual property and to otherwise interfere in Demodulation, Inc.'s business opportunities. The Company believes the complaint is without merit as it applies to the Company and intends to vigorously defend the action. The Company intends to file a motion to dismiss the complaint for failure to state a claim and on other grounds as well.

6. **Representations of Subscriber.** In connection with the purchase of the Shares, the Subscriber hereby represents and warrants to the Company as follows:

a. The Subscriber is an "accredited investor" as defined in Rule 501 of Regulation D promulgated under the Act.

b. The Shares are being purchased for the Subscriber's own account without the participation of any other person, with the intent of holding the Shares for investment and without the intent of participating, directly or indirectly, in a distribution of the Shares and not with a view to, or for a resale in connection with, any distribution of the Shares or any portion thereof, nor is the undersigned aware of the existence of any distribution of the Company's securities. Furthermore, the undersigned has no present intention of dividing such Shares with others or reselling or otherwise disposing of any portion of such Shares, either currently or after the passage of a fixed or determinable period of time, or upon the occurrence or nonoccurrence of any predetermined event or circumstance.

c. The Subscriber has no need for liquidity with respect to his purchase of the Shares and is able to bear the economic risk of an investment in the Shares for an indefinite period of time and is further able to afford a complete loss of such investment.

d. The Subscriber represents that his financial commitment to all investments (including his investment in the Company) is reasonable relative to his net worth and liquid net worth.

e. The Subscriber recognizes that the Shares will be sold to the Subscriber without registration under any United States federal or other law relating to the registration of securities for sale.

f. The Subscriber is aware that any resale of the Shares cannot be made except in accordance with the registration requirements of the United States Securities Act of 1933, as amended (the "Securities Act") or an exemption therefrom.

g. The Subscriber represents and warrants that all offers and sales of the Shares shall be made pursuant to an exemption from registration under the Act or pursuant to registration under the Act, and the Subscriber will not engage in any hedging or short selling transactions with regard to the Shares.

h. The Subscriber is not acquiring the Shares based upon any representation, oral or written, by any person with respect to the future value of, or income from, the Shares but rather upon an independent examination and judgment as to the prospects of the Company.

i. The Subscriber understands that the Company is an early stage company, has limited operating funds and has a limited operating history. The Subscriber appreciates and understands the risks involved with investing in a Company with a limited operating history and has read and understands the risk factors and other information set forth in the Company's Annual Report on Form 10-K, filed on December 15, 2010 and Quarterly Reports on Form 10-Q for the quarterly periods ended December 31, 2010 and March 31, 2011. This report and any future filings made with the SEC under Section 15(d) of the Securities Exchange Act of 1934, as amended, can be obtained by visiting the Securities and Exchange Commission's website at *http://www.sec.gov*. The Subscriber agrees that it is not relying on any other written information, including the Executive Summary, which may have been provided by the Company or the Company's placement agent.

j. The Subscriber represents, warrants and agrees that it will not sell or otherwise transfer the Shares without registration under the Securities Act or an exemption therefrom, and fully understands and agrees that the Subscriber must bear the economic risk of its purchase because, among other reasons, the Shares have not been registered under the Securities Act or under the securities laws of any state and, therefore, cannot be resold, pledged, assigned or otherwise disposed of unless they are subsequently registered under the Securities Act and under the applicable securities laws of such states, or an exemption from such registration is available. In particular, the Subscriber is aware that the Shares are "restricted securities," as such term is defined in Rule 144 promulgated under the Securities Act ("Rule 144"), and they may not be sold pursuant to Rule 144 unless all of the conditions of Rule 144 are met.

k. The Company, by and through itself and/or legal counsel, has made no representations or warranties as to the suitability of the Subscriber's investment in the Company, the length of time the undersigned will be required to own the Shares, or the profit to be realized, if any, as a result of investment in the Company. Neither the Company nor its counsel has made an independent investigation on behalf of the Subscriber, nor has the Company, by and through itself and counsel, acted in any advisory capacity to the Subscriber.

l. The Company, by and through itself and/or legal counsel, has made no representations or warranties that the past performance or experience on the part of the Company, or any partner or affiliate, their partners, salesmen, associates, agents, or employees or of any other person, will in any way indicate the predicted results of the ownership of the Shares.

m. The Company has made available for inspection by the undersigned, and his purchaser representative, if any, the books and records of the Company. Upon reasonable notice, such books and records will continue to be made available for inspection by investors upon reasonable notice during normal business hours at the principal place of business of the Company.

n. The Shares were not offered to the Subscriber by means of publicly disseminated advertisement or sales literature, nor is the Subscriber aware of any offers made to other persons by such means.

o. All information which the Subscriber has provided to the Company concerning the Subscriber is correct and complete as of the date set forth at the end of this Subscription Agreement, and if there should be any material adverse change in such information prior to receiving notification that this subscription has been accepted, the undersigned will immediately provide the Company with such information.

p. The Subscriber has reviewed and agrees with the terms set forth in the term sheets for employment agreements for each of James A. Hayward (JAH) and Kurt Jensen (KJ) attached as Exhibit A hereto (the "Term Sheets"). The Subscriber understands that the Company will be entering into employment agreements with each of James A. Hayward and Kurt H. Jensen substantially in accordance with the terms set forth in their respective Term Sheets as well as granting stock options, selling stock, issuing restricted stock and taking other actions in accordance therewith, including but not limited to amending the 2005 Incentive Stock Plan to increase the authorized shares thereunder.

7. **Patriot Act Representations.** In connection with the purchase of the Shares, the Subscriber hereby makes the representations and warranties to the Company attached hereto as Annex 1 ("Patriot Act Representations"), and agrees to the terms and conditions thereof. The Patriot Act Representations are hereby incorporated and made part of this Subscription Agreement.

8. **Agreements of Subscriber.** The Subscriber agrees as follows:

a. The sale of the Shares by the Company has not been recommended by any United States federal or other securities commission or regulatory authority. Furthermore, the foregoing authorities have not confirmed the accuracy or determined the adequacy of this Subscription Agreement.

b. The Shares will not be offered for sale, sold, or transferred other than pursuant to: (i) an effective registration under the Act or in a transaction otherwise in compliance with the Act; and (ii) evidence satisfactory to the Company of compliance with the applicable securities laws of other jurisdictions. The Company shall be entitled to rely upon an opinion of counsel satisfactory to it with respect to compliance with the above laws.

c. The Company is under no obligation to register the Shares or to comply with any exemption available for sale of the Shares without registration, and the information necessary to permit routine sales of securities of the Company under Rule 144 of the Act may not be available when you desire to resell them pursuant to Rule 144 of the Act. The Company is under no obligation to act in any manner so as to make Rule 144 available with respect to the Shares.

d. The Company may, if it so desires, refuse to permit the transfer of the Shares unless the request for transfer is accompanied by an opinion of counsel acceptable to the Company to the effect that neither the sale nor the proposed transfer will result in any violation of the Act or the applicable securities laws of any other jurisdiction.

e. A legend indicating that the Shares have not been registered under such securities laws and referring to the restrictions and transferability of the Shares may be placed on the certificates or instruments delivered to the Subscriber or any substitutes thereof and any transfer agent of the Company may be instructed to require compliance therewith.

9 . **Closing.** The Subscriber understands and agrees that the Company intends to issue the Shares upon receipt by the Company of this Subscription Agreement, together with the Subscriber's funds and certain other documents to be delivered to the Company by Subscriber. The Subscriber further understands that there may be conditions to closing this subscription which if not met may result in the return of this subscription hereunder.

10. **Indemnification of the Company.** The undersigned understands the meaning and legal consequences of the representations and warranties contained herein, and hereby agrees to indemnify and hold harmless, the Company, its respective agents, officers, managers and affiliates from and against any and all damages, losses, costs and expenses (including reasonable attorneys' fees) which they or any of them may incur by reason of the failure of the Subscriber to fulfill any of the terms of this Subscription Agreement, or by reason of any breach of the representations and warranties made by the Subscriber herein, or in any document provided by the Subscriber to the Company.

11. **Representative Capacity.** If an investment in the Company is being made by a corporation, partnership, trust or estate, the undersigned individual signing on behalf of the Subscriber, represents that he has all right and authority, in his capacity as an officer, managing member, trustee, executor or other representative of such corporation, trust or estate, as the case may be, to make such decision to invest in the Company and to execute and deliver this Subscription Agreement on behalf of such corporation, trust or estate as the case may be, enforceable in accordance with its terms. The undersigned individual also represent that any such corporation, trust or estate was not formed for the purpose of buying the Shares hereby subscribed.

12. **Subscription Not Revocable.** The undersigned hereby acknowledges and agrees that the undersigned is not entitled to cancel, terminate or revoke this Subscription Agreement or any agreements of the undersigned hereunder and that this Subscription Agreement shall survive the dissolution, death or disability of the undersigned.

13. **Restrictions on Transferability.** The undersigned understands and agrees that the Shares shall not be sold, pledged, hypothecated or otherwise transferred unless the Shares are registered under the Act and applicable state securities laws or an exemption from such registration is available.

14. **Governing Law.** This Subscription Agreement is being delivered and is intended to be performed in the State of New York, and shall be construed and enforced in accordance with, and the law of such state shall govern the rights of parties.

15. **Numbers and Gender.** In this Agreement, the masculine gender includes the feminine gender and the neuter and the singular includes the plural, where appropriate to the context.

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**ANNEX 1**

**PATRIOT ACT REPRESENTATIONS**

**The Subscriber represents that all evidence of identity provided is genuine and all related information furnished is accurate.**

The Subscriber hereby acknowledges that the Company and the Placement Agent seek to comply with all applicable anti-money laundering laws and regulations. In furtherance of such efforts, the Subscriber hereby represents and agrees that: (i) no part of the funds used by the Subscriber to acquire the Shares have been, or shall be, directly or indirectly derived from, or related to, any activity that may contravene federal, state, or international laws and regulations, including anti-money laundering laws and regulations; and (ii) no payment to the Company by the Subscriber shall cause the Company or Placement Agent to be in violation of any applicable anti-money laundering laws and regulations including without limitation, the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA PATRIOT ACT) Act of 2001, Executive Order 13224 (2001) (the "Patriot Act") issued by the President of the United States and the U.S. Department of the Treasury Office of Foreign Assets Control ("OFAC") regulations.

The Subscriber represents and warrants that the amounts to be paid by the Subscriber to the Company will not be directly or indirectly derived from activities that may contravene federal, state or international laws and regulations, including anti-money laundering laws and regulations. Federal regulations and Executive Orders administered by OFAC prohibit, among other things, the engagement in transactions with, and the provision of services to, certain foreign countries, territories, entities and individuals. These individuals include specially designated nationals, specially designated narcotics traffickers and other parties subject to OFAC sanctions and embargo programs, including the List of Specially Designated Nationals and Blocked Persons, as such list may be amended from time to time, or any Executive Order administered by OFAC. The lists of OFAC prohibited countries, territories, persons and entities can be found on the OFAC website at http://www.treas.gov/ofac. In addition, certain programs administered by OFAC (the "OFAC Programs") prohibit dealing with individuals or entities in certain countries regardless of whether such individuals or entities appear on the lists maintained by OFAC. The Subscriber represents and warrants that, to the best of its knowledge, none of: (a) the Subscriber; (b) any person controlling or controlled by the Subscriber; (c) if the Subscriber is a privately held entity, any person having a beneficial interest in the Subscriber; or (d) any person for whom the Subscriber is acting as agent or nominee in connection with the purchase of the Interest is (i) a country, territory, individual or entity named on a list maintained by OFAC, (ii) a person prohibited under the OFAC Programs, (iii) a senior foreign political figure,[1] or any immediate family member[2] or close associate[3] of a senior foreign political figure as such terms are defined in the footnotes below or (iv) a "foreign shell bank" within the meaning of the U.S. Bank Secrecy Act (31 U.S.C. §5311 *et seq*.), as amended (the "Bank Secrecy Act") and the regulations promulgated thereunder by the U.S. Department of the Treasury.

The Subscriber further represents and warrants that the Subscriber: (i) has conducted thorough due diligence with respect to all of its beneficial owners, (ii) has established the identities of all beneficial owners and the source of each of the beneficial owner's funds and (iii) will retain evidence of any such identities, any such source of funds and any such due diligence.

Neither the Subscriber nor any person directly or indirectly controlling, controlled by or under common control with the Subscriber is a person identified as a terrorist organization on any relevant lists maintained by governmental authorities.

The Subscriber agrees to provide the Company and Placement Agent all information that may be reasonably requested to comply with applicable laws and regulations of any applicable jurisdiction, or to respond to requests for information concerning the identity of the Subscriber from any governmental authority, self-regulatory organization or financial institution in connection with its anti-money laundering compliance procedures, or to update such information. The Subscriber agrees to notify the Company and Placement Agent promptly if there is any change with respect to the representations and warranties provided herein. The Subscriber consents to the disclosure to regulators and law enforcement authorities by the Company and Placement Agent and its affiliates and agents of any information about the Subscriber or its constituents as the Company and Placement Agent reasonably deem necessary or appropriate to comply with applicable anti-money laundering, anti-terrorist and asset control laws, regulations, rules and orders.

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1 A "senior foreign political figure" is defined as a senior official in the executive, legislative, administrative, military or judicial branches of a foreign government (whether elected or not), a senior official of a major foreign political party, or a senior executive of a foreign government-owned corporation. In addition, a "senior foreign political figure" includes any corporation, business or other entity that has been formed by, or for the benefit of, a senior foreign political figure.

2 "Immediate family" of a senior foreign political figure typically includes the figure's parents, siblings, spouse, children and in-laws.

3 A "close associate" of a senior foreign political figure is a person who is widely and publicly known to maintain an unusually close relationship with the senior foreign political figure, and includes a person who is in a position to conduct substantial domestic and international financial transactions on behalf of the senior foreign political figure.

terms are defined in the footnotes below or (iv) a "foreign shell bank" within the meaning of the U.S. Bank Secrecy Act (31 U.S.C. §5311 *et seq*.), as amended (the "Bank Secrecy Act") and the regulations promulgated thereunder by the U.S. Department of the Treasury.

The Subscriber further represents and warrants that the Subscriber: (i) has conducted thorough due diligence with respect to all of its beneficial owners, (ii) has established the identities of all beneficial owners and the source of each of the beneficial owner's funds and (iii) will retain evidence of any such identities, any such source of funds and any such due diligence.

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The Subscriber agrees to provide the Company and Placement Agent all information that may be reasonably requested to comply with applicable laws and regulations of any applicable jurisdiction, or to respond to requests for information concerning the identity of the Subscriber from any governmental authority, self-regulatory organization or financial institution in connection with its anti-money laundering compliance procedures, or to update such information. The Subscriber agrees to notify the Company and Placement Agent promptly if there is any change with respect to the representations and warranties provided herein. The Subscriber consents to the disclosure to regulators and law enforcement authorities by the Company and Placement Agent and its affiliates and agents of any information about the Subscriber or its constituents as the Company and Placement Agent reasonably deem necessary or appropriate to comply with applicable anti-money laundering, anti-terrorist and asset control laws, regulations, rules and orders.

**EXHIBIT 10.29**

**NEITHER THIS SECURITY NOR THE SECURITIES FOR WHICH THIS SECURITY IS EXERCISABLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN SECURED BY SUCH SECURITIES.**

**APPLIED DNA SCIENCES, INC.**

**PURCHASE WARRANT**

Warrant No. __ Issue Date: July 15, 2011

**THIS PURCHASE WARRANT** certifies that, for value received, _____ (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the Issue Date and on or prior to the close of business on July 15, 2018 (the "Termination Date") but not thereafter, to subscribe for and purchase from Applied DNA Sciences, Inc., a Delaware corporation (the "Company"), at the Exercise Price (as defined below) an aggregate of _____ fully paid, validly issued and nonassessable shares of common stock, $0.001 par value per share (the "Common Stock"), of the Company. As used herein "Underlying Securities" means, the shares of Common Stock, issuable upon exercise of this Warrant.

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein, the Company and the Warrant Holder hereby agree as follows:

**Section 1.** Exercise of Warrant.

(a) Process. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Issue Date and on or before the Termination Date by delivery to the Company (the date of such delivery, the "Exercise Date") of a duly executed facsimile copy of the Notice of Exercise attached hereto as Exhibit A (or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of the Holder appearing on the books of the Company). Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased the entire Underlying Securities available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days (as defined below) of the date the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the Underlying Securities available hereunder shall have the effect of lowering the Underlying Securities purchasable hereunder by the Underlying Securities purchased. The Holder and the Company shall maintain records showing the Underlying Securities purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Trading Day of receipt of such notice. In the event of any dispute or discrepancy, the records of the Holder shall be controlling and determinative in the absence of manifest error. The Holder may provide this Warrant, or an affidavit of lost security, to the Company within a reasonable period after the delivery of any Notice of Exercise related to any partial exercise of this Warrant, and the Company, at its expense, will promptly and, in any event within three (3) Trading Days thereafter, issue and deliver to the Holder a new Warrant of like tenor, registered in the name of the Holder and exercisable, in the aggregate, for the remaining Underlying Securities available for purchase under this Warrant. The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Underlying Securities hereunder, the Underlying Securities available for purchase hereunder at any given time may be less than the amount stated on the face hereof. As used herein (i) "Trading Day" means any day on which the Common Stock is traded on the Principal Market, or, if the Principal Market is not the principal trading market for the Common Stock, then on the principal securities exchange or securities market on which the Common Stock is then traded; *provided* that "Trading Day" shall not include any day on which the Common Stock is scheduled to trade on such exchange or market for less than 4.5 hours or any day that the Common Stock is suspended from trading during the final hour of trading on such exchange or market (or if such exchange or market does not designate in advance the closing time of trading on such exchange or market, then during the hour ending at 4:00:00 p.m., New York Time), and (ii) "Principal Market" means the OTC Bulletin Board.

(b) Exercise Price. For purposes of this Warrant, "Exercise Price" means $0.0475 per share;

(c) Cash Exercise. This Warrant may be exercised in whole or in part at any time prior to the Termination Date, by delivery of the following to the Company:

(i) A duly completed and executed Notice of Exercise in the form attached hereto as Exhibit B; and

(ii) The aggregate purchase price for the Underlying Securities with respect to which this Warrant is being exercised, in lawful money of the United States, in one, or a combination, of the following methods: (1) cash, (2) certified check or bank draft payable to the order of the Company, or (3) by wire transfer of immediately available funds.

(d) Cashless Exercise. This Warrant may be exercised in whole or in part at any time prior to the Termination Date, by means of a "cashless exercise" in which event the Company shall issue to the Holder the number of Underlying Securities determined as follows:

X = Y [(A-B)/A]

where:

X = the number of Underlying Securities to be issued to the Holder.

Y = the number of Underlying Securities with respect to which this Warrant is being exercised.

A = the volume weighted average closing price of the Common Stock for the five (5) consecutive Trading Day period ending on the Trading Day immediately preceding the date of such election.

B = the Exercise Price.

(e) Delivery of Underlying Securities; etc.

(i) Upon exercise of this Warrant, the Company shall promptly (but in no event later than five (5) Trading Days after the Exercise Date) (the "Delivery Date") issue and deliver (or cause to be issued and delivered) to the Holder the Underlying Securities issuable upon such exercise. The Holder, or any person permissibly designated by the Holder to receive the Underlying Securities, shall be deemed to have become the holder of record of such Underlying Securities as of the Exercise Date.

(ii) To the extent permitted by law, the Company's obligations to issue and deliver the Underlying Securities in accordance with the terms hereof are absolute and unconditional, irrespective of any action or inaction by the Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination, or any breach or alleged breach by the Holder or any other person of any obligation to the Company or any violation or alleged violation of law by the Holder or any other person, and irrespective of any other circumstance that might otherwise limit such obligation of the Company to the Holder in connection with the issuance of Underlying Securities. Nothing herein shall limit the Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver the Underlying Securities issuable upon exercise of this Warrant as required pursuant to the terms hereof.

(iii) If the Company fails to transmit to the Holder Underlying Securities pursuant to this Section 1(e) by the fifth Trading Day immediately following the Delivery Date, then the Holder will have the right to rescind such exercise.

(iv) Issuance of Underlying Securities shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Underlying Securities, all of which taxes and expenses shall be paid by the Company, and such Underlying Securities shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; *provided,* however, that in the event Underlying Securities are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto as Exhibit C duly executed by the Holder.

(f) Notice to Allow Exercise by the Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock; (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock; (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights; (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, of any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property; or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company; then, in each case, the Company shall cause to be mailed to the Holder at its last address as it shall appear upon the Warrant Register (as defined below) of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to mail such notice or any defect therein or in the mailing thereof shall not affect the validity of the corporate action required to be specified in such notice. Subject to applicable law, the Holder is entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice. Notwithstanding the foregoing, the delivery of the notice described in this Section 1(f) is not intended to and shall not bestow upon the Holder any voting rights whatsoever with respect to the Warrant.

**Section 2.** Transfer of Warrant.

(a) Transferability. Subject to compliance with any applicable federal or state securities laws, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto as Exhibit B duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant in the name of the assignee or assignees and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. A Warrant, if properly assigned, may be exercised by a new holder for the purchase of Underlying Securities without having a new Warrant issued.

(b) New Warrant. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 2(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the original Issue Date and shall be identical with this Warrant except as to the Underlying Securities issuable pursuant thereto.

(c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

**Section 3.** Registration Rights

(a) Demand Registration.

(i) If, at any time, the Company shall receive a written request from the Holder that the Company effect the registration under the Securities Act of 1933, as amended (the "Securities Act"), of shares of Common Stock issuable upon exercise hereof (the "Registrable Securities"), then the Company will use its reasonable efforts to effect, as expeditiously as possible, the registration under the Securities Act of the Registrable Securities that the Company has been so requested to register by the Holder to the extent necessary to permit the disposition (in accordance with the intended methods thereof) of the Registrable Securities so to be registered; *provided*, that the Company shall not be obligated to effect more than one (1) Demand Registration pursuant to this Section 3(a).

(ii) The Company will be liable for and pay all expenses in connection with any Demand Registration.

(b) Piggyback Registration.

(i) If the Company proposes to register any Common Stock under the Securities Act (other than a registration on Form S-8 or S-4, or any successor or similar forms, relating to Common Stock issuable upon exercise of employee stock options or in connection with any employee benefit or similar plan of the Company or in connection with a direct or indirect acquisition by the Company of another person), whether or not for sale for its own account, it will each such time give written notice at least ten (10) Trading Days prior to the anticipated filing date of the registration statement relating to such registration to the Holder, which notice shall set forth the Holder's rights under this Section 3(b) and shall offer the Holder the opportunity to include in such registration statement the number of Registrable Securities as the Holder may request. Upon the written request of the Holder made within ten (10) days after the receipt of notice from the Company (which request shall specify the number of Registrable Securities intended to be disposed of by the Holder), the Company will use its reasonable efforts to effect the registration under the Securities Act of all Registrable Securities that the Company has been so requested to register by the Holder; *provided* that if, at any time after giving written notice of its intention to register any securities pursuant to this Section 3(b) and prior to the effective date of the registration statement filed in connection with such registration, the Company shall determine for any reason not to register such securities, the Company shall give written notice to the Holder and, thereupon, shall be relieved of its obligation to register any Registrable Securities in connection with such registration. No registration effected under this Section 3(b) shall relieve the Company of its obligations to effect a Demand Registration to the extent required by Section 3(a).

(ii) The Company will be liable for and pay all expenses in connection with each registration of Registrable Securities pursuant to this Section 3(b).

(c) Registration Procedures.

(i) Whenever the Holder requests that any Registrable Securities be registered pursuant to Sections 3(a) or (b) hereof, the Company will as expeditiously as possible prepare and file with the Securities and Exchange Commission (the "SEC") a registration statement on any form reasonably acceptable to the Holder for which the Company then qualifies or that counsel for the Company shall deem appropriate and which form shall be available for the sale of the Registrable Securities to be registered thereunder in accordance with the intended method of distribution thereof, and use its reasonable efforts to cause such filed registration statement to become and remain effective until the earlier of (A) the date as of which the Holder may sell all of the Registrable Securities covered by such registration statement without restriction or limitation pursuant to Rule 144 and without the requirement to be in compliance with Rule 144(c)(1) (or any successor thereto) promulgated under the Securities Act or (B) the date on which the Holder shall have sold all of the Registrable Securities covered by such registration statement (the "Registration Period"). The Company shall ensure that each registration statement (including any amendments or supplements thereto and prospectuses contained therein) shall not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein, or necessary to make the statements therein (in the case of prospectuses, in the light of the circumstances in which they were made) not misleading. The Company shall prepare and file with the SEC such amendments (including post-effective amendments) and supplements to a registration statement and the prospectus used in connection with such registration statement, which prospectus is to be filed pursuant to Rule 424 promulgated under the Securities Act, as may be necessary to keep such registration statement effective at all times during the Registration Period, and, during such period, comply with the provisions of the Securities Act with respect to the disposition of all Registrable Securities of the Company covered by such Registration Statement until such time as all of such Registrable Securities shall have been disposed of in accordance with the intended methods of disposition by the seller or sellers thereof as set forth in such Registration Statement.

(ii) The Company shall permit the Holder to review (A) a registration statement at least three (3) Trading Days prior to its filing with the SEC and (B) all amendments and supplements to all registration statements (except for Annual Reports on Form 10-K and Quarterly Reports on Form 10-Q or any similar or successor reports) within a reasonable number of days prior to their filing with the SEC. The Company shall furnish to the Holder whose Registrable Securities are included in a registration statement, without charge, (1) copies of any correspondence from the SEC or the staff of the SEC to the Company or its representatives relating to any registration statement, (2) promptly after the same is prepared and filed with the SEC, one copy of any registration statement and any amendment(s) thereto, including financial statements and schedules, all documents incorporated therein by reference, if requested by the Holder, and all exhibits and (3) upon the effectiveness of any registration statement, such number of copies of the prospectus included in such registration statement and all amendments and supplements thereto as the Holder may reasonably request.

(iii) The Company shall use its reasonable efforts to (A) register and qualify, unless an exemption from registration and qualification applies, the resale by the Holder under such other securities or "blue sky" laws of all applicable jurisdictions in the United States, (B) prepare and file in those jurisdictions, such amendments (including post-effective amendments) and supplements to such registrations and qualifications as may be necessary to maintain the effectiveness thereof during the Registration Period, (C) take such other actions as may be necessary to maintain such registrations and qualifications in effect at all times during the Registration Period, and (D) take all other actions reasonably necessary or advisable to qualify the Registrable Securities for sale in such jurisdictions; *provided, however*, that the Company shall not be required in connection therewith or as a condition thereto to (1) make any change to its certificate of incorporation or bylaws, (2) qualify to do business in any jurisdiction where it would not otherwise be required to qualify but for this Section 3(d), (3) subject itself to general taxation in any such jurisdiction, or (4) file a general consent to service of process in any such jurisdiction. The Company shall promptly notify the Holder of the receipt by the Company of any notification with respect to the suspension of the registration or qualification of any of the Registrable Securities for sale under the securities or "blue sky" laws of any jurisdiction in the United States or its receipt of notice of the initiation or threatening of any proceeding for such purpose.

(iv) The Company shall notify the Holder in writing of the happening of any event, as promptly as reasonably practicable after becoming aware of such event, as a result of which the prospectus included in a registration statement, as then in effect, includes an untrue statement of a material fact or omission to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading (provided that in no event shall such notice contain any material, nonpublic information), promptly prepare a supplement or amendment to such registration statement to correct such untrue statement or omission, and deliver such number of copies of such supplement or amendment to the Holder as the Holder may reasonably request. The Company shall also promptly notify the Holder in writing (A) when a prospectus or any prospectus supplement or post-effective amendment has been filed, and when a registration statement or any post-effective amendment has become effective (notification of such effectiveness shall be delivered to each the Holder by facsimile or e-mail on the same day of such effectiveness and by overnight mail), (B) of any request by the SEC for amendments or supplements to a registration statement or related prospectus or related information, and (C) of the Company's reasonable determination that a post-effective amendment to a registration statement would be appropriate.

(v) If the Holder is required under applicable securities laws to be described in the registration statement as an underwriter, at the reasonable request of the Holder, the Company shall furnish to the Holder, on the date of the effectiveness of the registration statement and thereafter from time to time on such dates as the Holder may reasonably request (A) a letter, dated as of such date, from the Company's independent certified public accountants in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering, addressed to the Holder, and (B) an opinion, dated as of such date, of counsel representing the Company for purposes of such registration statement, in form, scope and substance as is customarily given in an underwritten public offering, addressed to the Holder.

(vi) Upon the written request of the Holder in connection with the Holder's due diligence requirements, if any, the Company shall make available for inspection by the Holder or agents retained by the Holder (collectively, the "Inspectors"), all pertinent financial and other records, and pertinent corporate documents and properties of the Company (collectively, the "Records"), as shall be reasonably deemed necessary by each Inspector, and cause the Company's officers, directors and employees to supply all information which any Inspector may reasonably request; *provided, however,* that each Inspector shall agree to hold in strict confidence and shall not make any disclosure (except to the Holder) or use of any Record or other information which the Company determines in good faith to be confidential, and of which determination the Inspectors are so notified, unless (A) the disclosure of such Records is necessary to avoid or correct a misstatement or omission in any registration statement or is otherwise required under the Securities Act, (B) the release of such Records is ordered pursuant to a final, non-appealable subpoena or order from a court or government body of competent jurisdiction, or (C) the information in such Records has been made generally available to the public other than by disclosure in violation of this Agreement or any other agreement. The Holder agrees that it shall, upon learning that disclosure of such Records is sought in or by a court or governmental body of competent jurisdiction or through other means, give prompt notice to the Company and allow the Company, at its expense, to undertake appropriate action to prevent disclosure of, or to obtain a protective order for, the Records deemed confidential. Nothing herein shall be deemed to limit the Holder's ability to sell Registrable Securities in a manner which is otherwise consistent with applicable laws and regulations.

(vii) The Company shall hold in confidence and not make any disclosure of information concerning the Holder provided to the Company unless (A) disclosure of such information is necessary to comply with federal or state securities laws, (B) the disclosure of such information is necessary to avoid or correct a misstatement or omission in any registration statement, (C) the release of such information is ordered pursuant to a subpoena or other final, non-appealable order from a court or governmental body of competent jurisdiction, or (D) such information has been made generally available to the public other than by disclosure in violation of this Warrant. The Company agrees that it shall, upon learning that disclosure of such information concerning the Holder is sought in or by a court or governmental body of competent jurisdiction or through other means, give prompt written notice to the Holder and allow the Holder, at the Holder's expense, to undertake appropriate action to prevent disclosure of, or to obtain a protective order for, such information.

(viii) The Company shall use its reasonable efforts either to cause all of the Registrable Securities covered by a registration statement to be listed or quoted on each securities exchange, bulletin board or quotation system on which securities of the same class or series issued by the Company are then listed or quoted.

(ix) The Company shall cooperate with the Holder and, to the extent applicable, facilitate the timely preparation and delivery of certificates (not bearing any restrictive legend) representing the Registrable Securities to be offered pursuant to a registration statement and enable such certificates to be in such denominations or amounts, as the case may be, as the Holder may reasonably request and registered in such names as the Holder may request.

(x) If requested by the Holder, the Company shall (A) as soon as reasonably practicable incorporate in a prospectus supplement or post-effective amendment such information as the Holder reasonably requests to be included therein relating to the sale and distribution of Registrable Securities, including, without limitation, information with respect to the number of Registrable Securities being offered or sold, the purchase price being paid therefor and any other terms of the offering of the Registrable Securities to be sold in such offering; (B) as soon as reasonably practicable make all required filings of such prospectus supplement or post-effective amendment after being notified of the matters to be incorporated in such prospectus supplement or post-effective amendment; and (C) as soon as reasonably practicable, supplement or make amendments to any registration statement if reasonably requested by the Holder.

(xi) The Company shall use its reasonable efforts to cause the Registrable Securities to be registered with or approved by such other governmental agencies or authorities as may be necessary to consummate the disposition of such Registrable Securities.

(xii) The Company shall otherwise use its reasonable efforts to comply with all applicable rules and regulations of the SEC in connection with any registration hereunder.

(xiii) Within two (2) Trading Days after a registration statement which covers Registrable Securities is ordered effective by the SEC, the Company shall deliver, and shall cause legal counsel for the Company to deliver, to the transfer agent for such Registrable Securities (with copies to the Holder) confirmation that such registration statement has been declared effective by the SEC.

**Section 4.** Miscellaneous.

(a) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant, and upon surrender and cancellation of such Warrant, if mutilated, the Company will make and deliver a new Warrant of like tenor and dated as of such cancellation, in lieu of such Warrant.

(b) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Trading Day, then such action may be taken or such right may be exercised on the next succeeding Trading Day.

(c) Company Covenants.

(i) The Company covenants that during the period the Warrant is outstanding and exercisable, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the exercise in full of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of executing Underlying Securities to execute and issue the necessary Underlying Securities upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Underlying Securities may be issued as provided herein without violation of any applicable law or regulation. The Company covenants that all Underlying Securities which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant, be duly authorized, validly issued and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

(ii) The Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of the Holder as set forth in this Warrant against impairment.

(d) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of New York or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of New York. The Company hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in The City of New York, Borough of Manhattan, for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. In the event that any provision of this Warrant is invalid or unenforceable under any applicable statute or rule of law, then such provision shall be deemed inoperative to the extent that it may conflict therewith and shall be deemed modified to conform to such statute or rule of law. Any such provision which may prove invalid or unenforceable under any law shall not affect the validity or enforceability of any other provision of this Warrant. **THE COMPANY HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE, AND AGREES NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION WITH OR ARISING OUT OF THIS WARRANT OR ANY TRANSACTION CONTEMPLATED HEREBY.**

(e) Restrictions. The Holder acknowledges that the Underlying Securities acquired upon the exercise of this Warrant, if not registered, will have restrictions upon resale imposed by state and federal securities laws and shall bear a restrictive legend in substantially the following form:

NEITHER THIS SECURITY NOR THE SECURITIES FOR WHICH THIS SECURITY IS CONVERTIBLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN SECURED BY SUCH SECURITIES.

(f) Notices. Any notices, consents, waivers or other communications required or permitted to be given under the terms of this Warrant must be in writing and will be deemed to have been delivered: (i) upon receipt, when delivered personally; (ii) upon receipt, when sent by facsimile (provided confirmation of transmission is mechanically or electronically generated and kept on file by the sending party); or (iii) one (1) Trading Day after deposit with an overnight courier service, in each case properly addressed to the party to receive the same. The addresses and facsimile numbers for such communications shall be:

If to the Company:

Applied DNA Sciences, Inc.
25 Health Sciences Drive, Suite 113
Stony Brook, New York 11790
Telephone: (631) 444-6370
Facsimile: (631) 444-8848
Attention: Chief Financial Officer

If to the Holder:

_____
_____
_____
_____
Telephone: _____
Facsimile:
Attention:

(g) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Underlying Securities, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the Exercise Price of any Underlying Security of the Company, whether such liability is asserted by the Company or by creditors of the Company.

(h) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

(i) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors of the Company and the successors and permitted assigns of the Holder. The provisions of this Warrant are intended to be for the benefit of all Holders from time to time of this Warrant and shall be enforceable by any such Holder or holder of Underlying Securities.

(j) Amendment; Waiver. No provision of this Warrant may be waived or amended other than by written instrument signed by the Company and the Holder and their successors and assigns.

(k) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

(l) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK,
SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

APPLIED DNA SCIENCES, INC.

By: _____

Name: Kurt H. Jensen
Title: Chief Financial Officer

**EXHIBIT A**
**NOTICE OF EXERCISE**

TO: Applied DNA Sciences, Inc.

**1.** [ ] (Check if applicable) The undersigned hereby elects to purchase [_____] shares of Common Stock, $0.001 par value per share, of the Company pursuant to the terms of the attached Warrant, and tenders herewith payment of the exercise price related to such principal amount in full in lawful money of the United States.

Or

**1.** [ ] (Check if applicable) The undersigned hereby elects to purchase shares of Common Stock, $0.001 par value per share, of the Company as a cashless exercise of $[_____] of the total Exercise Price of this Warrant.

**2.** Please issue Common Stock in the name of the undersigned or in such other name as is specified below:

_____

The Common Stock shall be delivered by physical delivery to:

_____

_____

_____

**3.** Accredited Investor. The undersigned is an "accredited investor" as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____

Signature of Authorized Signatory of Investing Entity: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____

**EXHIBIT C**
**ASSIGNMENT FORM**

(To assign the foregoing warrant, execute
this form and supply required information.
Do not use this form to exercise the warrant.)

FOR VALUE RECEIVED, [____] all of or [_____] of the Common Stock issuable upon exercise of the foregoing Warrant and all rights evidenced thereby are hereby assigned to

_____ whose address is

_____

_____

Dated: _____, _____

Holder's Signature: _____

Holder's Address: _____

_____

.

,

**EXHIBIT 10.30**

***Confidential Treatment Requested***

**Certain portions of this exhibit, as indicated by ***, have been omitted, pursuant to a request for confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934. The omitted materials have been separately filed with the Securities and Exchange Commission.**

**JOINT DEVELOPMENT AGREEMENT**

This Joint Development Agreement (the "Agreement") is entered into between C.F. Martin & Co., Inc., a Pennsylvania Corporation having a business address of 510 Sycamore Street, Nazareth, PA 18064 ("Martin"), and Applied DNA Sciences, a Delaware Corporation having a business address of 25 Health Sciences Drive, Suite 215, Stony Brook, NY 11790 ("ADNAS")(Martin and ADNAS are collectively referred to as the "Parties"), on June 30, 2011 (the "Effective Date").

RECITALS

Martin designs and manufactures musical instruments such as acoustic guitars, strings for acoustic guitars, and related guitar components and accessories. Martin is the largest producer of acoustic guitars in the United States and is highly regarded around the world for creating some of the finest instruments and introducing innovations that have become industry standards in the music products industry. Established in 1833, Martin is one of the oldest surviving makers of guitars in the world.

Martin recognizes that counterfeit acoustic guitars and guitar strings bearing the Martin name and trademarks are manufactured and sold around the world, and that sophisticated counterfeiters produce guitars with a high degree of likeness to an authentic Martin guitar. Sales of counterfeit guitars diminish sales of authentic Martin guitars and counterfeit guitars diminish the goodwill associated with the Martin name. Martin desires to combat counterfeiting of its musical instruments, strings, and related components and accessories with advanced authentication technology.

ADNAS is an innovator in anti-counterfeit technology. ADNAS develops and implements novel vehicles and protocols for labeling and authenticating a wide array of articles with plant and plant-derived DNA. ADNAS has developed plant and plant-derived DNA markers and methods for labeling and authenticating products, including musical instruments, and authenticating the originality of products labeled with its DNA markers. The platform formulations, techniques, and know-how are proprietary to ADNAS.

ADNAS desires to expand its customer base to include manufacturers of musical instruments and musical instrument components, including manufacturers of guitars and guitar strings. As part of its marketing and publicity efforts, ADNAS desires that Martin identify ADNAS as a supplier of anti-counterfeit technology used to label Martin guitars, guitar strings, components, and accessories.

Martin and ADNAS desire to enter into an agreement to develop new techniques and know-how for labeling guitars and guitar strings with DNA markers, such that the new techniques and know-how are compatible with the unique attributes of Martin's guitars and guitar strings, and do not negatively affect the sound quality produced by these guitars and guitar strings. Martin and ADNAS desire to utilize and promote the use of the new techniques and know-how for labeling and authenticating guitars and guitar strings using DNA markers.

NOW, THEREFORE, in consideration of the foregoing Recitals, the mutual promises, covenants, and agreements contained in this Agreement, and for other good and valuable consideration, the receipt of which is hereby acknowledged, the Parties, intending to be legally bound, hereby agree as follows.

ARTICLE 1
DEVELOPMENT PROGRAM

1.1 The Parties recognize and acknowledge that prior to the Effective Date of this Agreement, the Parties jointly developed and created techniques and know-how for labeling guitars and guitar strings with DNA markers. The Parties agree that such jointly developed techniques, and know-how are within the scope of this Agreement, and that all Articles of this Agreement shall apply retroactively to all efforts undertaken to jointly develop techniques and know-how for labeling guitars and guitar strings with DNA markers, as well as to all techniques and know-how jointly developed by the Parties prior to the Effective Date of this Agreement. As used in this Agreement, the term "guitars" includes guitar components and guitar accessories.

A. Martin acknowledges that the platform technology for creating and developing DNA markers, and formulating them in vehicles for anti-counterfeiting and authentication applications is proprietary to ADNAS.

B. Martin acknowledges that DNA markers created by ADNAS specifically for Martin's guitars and guitar strings are stored and archived by ADNAS.

1.2 Immediately following execution of this Agreement, the Parties shall commence activity to continue to jointly develop, create, and apply techniques and know-how for labeling guitars and guitar strings with DNA markers. "DNA markers" include compositions of plant and/or plant-derived polynucleotides having any length or sequence, having any number of strands, and with or without a detectable label.

1.3 Martin may, from time to time, request ADNAS to research and produce new DNA markers, buffers, materials, and reagents for labeling guitars or guitar strings with DNA markers. The Parties agree to confer about the cost, scope, and feasibility of any such request, and thereafter, ADNAS may decline the request in its discretion.

1.4 Martin may use DNA markers provided by ADNAS in research relating to, among other things, the compatibility of the markers with acoustic guitars and guitar strings, suitable locations on acoustic guitars and guitar strings for labeling with DNA markers, the effect of labeling on the sound quality produced by a labeled acoustic guitar or guitar string, the ideal stage of manufacture of an acoustic guitar or guitar strings for labeling, the impact of environmental conditions on the DNA makers over time, the relative ease of identifying the locations of the label on the guitar or the guitar strings, and the relative ease of reverse engineering the label.

1.5 ADNAS shall provide:

DNA markers composed of plant and/or plant-derived DNA; Buffers, materials, and reagents and instructions for storing DNA markers; Reagents, materials, and instructions for labeling products with DNA markers; Expertise for manufacturing DNA markers; Expertise for labeling products with DNA markers; Expertise for authenticating products labeled with DNA markers.

1.6 Martin shall provide:

Guitars, guitar strings, and guitar components and accessories; Expertise for manufacturing guitars and guitar strings; Expertise on sound quality for guitars and guitar strings; Non-proprietary expertise for packaging, promoting, marketing, and distributing guitars and guitar strings, on an as-needed basis and for the limited purpose of fulfilling Martin's duties under this Agreement.

1.7 Martin and ADNAS agree that time is of the essence and therefore agree to use their best efforts to complete the development and creation of techniques and know-how for labeling guitars and guitar strings with DNA markers. "Best efforts" are those steps that a commercially reasonable party in the position of Martin or ADNAS would take under the same circumstances.

## ARTICLE 2
## FUNDING

2.1 Each party shall bear and be responsible for its own expenses and costs relating to all materials, supplies, reagents, licenses, labor, and work on the development and creation of techniques and know-how for labeling guitars and guitar strings with DNA markers in accordance with this Agreement.

## ARTICLE 3
## EXCLUSIVITY

3.1 ADNAS and Martin agree not to sell, offer for sale, enter into any agreement with any third party for the future sale of, advertise, or market, anywhere in the world, subject to paragraph 3.1A below, any jointly developed technique for labeling guitars or guitar strings with DNA markers for a period of six (6) months beginning on the Effective Date of this Agreement (the "Period of Exclusivity").

A. During the Period of Exclusivity, ADNAS may sell, offer for sale, or enter into any agreement for the future sale of any jointly developed technique for labeling guitars or guitar strings with DNA markers to the following companies:***, and other companies agreed upon in writing by the Parties.

3.2 Martin shall purchase DNA markers exclusively from ADNAS during the term of this Agreement or during the Period of Exclusivity, whichever is longer.

ARTICLE 4
PUBLICITY

4.1 Each party agrees to recognize and acknowledge the other party as an innovator of techniques for labeling guitars and guitar strings using DNA markers in all information, publications, data, advertising, marketing, promotional materials, and publicity, if any, relating to jointly developed techniques, guitars or guitar strings labeled using jointly developed techniques, or materials or kits for labeling guitars or guitar strings using jointly developed techniques.

4.2 Martin and ADNAS agree that, during the Period of Exclusivity, all information, data, advertising, and publicity, if any, relating to guitars or guitar strings labeled with DNA markers, or labeled using jointly developed techniques for labeling guitars or guitar strings with DNA markers shall be jointly managed by Martin and ADNAS. During the Period of Exclusivity, publication of information, experiments, data, test results, abstracts, posters, and other public presentations by ADNAS pertaining to jointly developed techniques for labeling guitars or guitar strings with DNA markers shall take place only with the express written consent of Martin, which consent shall not be unreasonably withheld.

4.3 Martin agrees that ADNAS shall not be required to obligate purchasers from or

licensees of ADNAS of DNA markers, materials, kits, reagents, or techniques for labeling guitars or guitar strings with DNA markers, whether or not jointly developed by Martin and ADNAS, to acknowledge or identify Martin on any product labeled with a DNA marker, or on any packaging or case provided with a product labeled with a DNA marker, subject to paragraph 4.4 below.

4.4 ADNAS shall use commercially reasonable efforts to require any purchasers from and any licensees of ADNAS of techniques for labeling guitars or guitar strings with DNA markers jointly developed by Martin and ADNAS to acknowledge and identify Martin and ADNAS as joint developers of techniques for labeling guitars or guitar strings with DNA markers on any and all information, brochures, presentations, publications, data, advertisements, advertising materials, marketing materials, promotional materials, press releases, articles, literature, or other materials (the "Promotional Materials") about, relating to, or describing the source, origin, or the development of the jointly developed techniques for labeling guitars or guitar strings with DNA markers, if and when said purchasers or licensees present, exhibit, demonstrate, publish, distribute, or otherwise communicate such Promotional Materials in any form, during, in, or on websites, social media, trade journals, trade shows, trade magazines, newspapers, newsletters, programs, or other forum.

4.5 ADNAS agrees to use commercially reasonable efforts to acknowledge and identify Martin as a joint developer of techniques for labeling guitars or guitar strings with DNA markers in all information, brochures, publications, data, advertisements, advertising materials, marketing materials, promotional materials, press releases, articles, literature, or other materials about or relating to guitars or guitar strings labeled with DNA markers using these techniques, presented, exhibited, demonstrated, published, distributed, or otherwise communicated, in any form, during, in, or on websites, social media, trade journals, trade shows, trade magazines, newspapers, newsletters, programs, or other forum about or relating to the manufacture, labeling, or authentication of musical instruments.

4.6 Martin agrees to use commercially reasonable efforts to acknowledge and

identify ADNAS as a joint developer of techniques for labeling guitars or guitar strings with DNA markers in all information, brochures, publications, data, advertisements, advertising materials, marketing materials, promotional materials, press releases, articles, literature, or other materials about or relating to guitars or guitar strings labeled with DNA markers using these techniques, presented, exhibited, demonstrated, published, distributed, or otherwise communicated, in any form, during, in, or on websites, social media, trade journals, trade shows, trade magazines, newspapers, newsletters, programs, or other forum about or relating to the manufacture, labeling, or authentication of musical instruments.

4.7 Neither party shall use the other party's trademarks in any way in any marketing, advertising, promotional, or other materials without the prior written consent of the other party.

## ARTICLE 5
## INVENTIONS AND PATENTS

5.1 All patents, patent applications, know-how, or other proprietary information existing before this Agreement, and disclosed under this Agreement and the confidentiality provisions described in Article 6 of this Agreement, shall remain the property of the disclosing party.

5.2 The Parties shall jointly own all inventions, whether patentable or not, conceived or first reduced to practice, together with all technical information and know-how relating to techniques or know-how for labeling guitars or guitar strings with DNA markers developed jointly in the course of this Agreement.

5.3 The Parties agree to confer about all decisions concerning the selection of patent counsel and the filing and prosecuting of patent applications, if any, in the United States and in any international jurisdiction, relating to jointly developed techniques or know-how for labeling guitars or guitar strings with DNA markers.

5.4 Each party shall have the right to use jointly developed techniques or know-how for labeling guitars or guitar strings without the permission of the other party. For any jointly owned patents or patent applications, each party shall have the right to make, use, or sell products or processes covered by claims in the patents or patent applications without the permission of the other party.

5.5 Neither party may sell, offer for sale, gift, transfer, assign, encumber, pledge, or license jointly owned patents or patent applications to any third party without the prior written consent of the other party.

5.6 Each party agrees to supply all information and evidence of which it has knowledge or possession, relating to the making and practice of any inventions relating to jointly developed techniques or know-how for labeling guitars or guitar strings, to testify in any legal proceeding relating thereto, to execute all instruments proper to patent or evidence ownership of the inventions in the United States of America and foreign countries, and to execute all instruments proper to carry out the intent of this Agreement.

5.7 Each party shall maintain suitable agreements with their respective employees and agents such that title to any inventions described in this Article can be transferred free of any kind of ownership interest by such employees and agents.

5.8 The Parties shall jointly own and equally bear all responsibility, including costs and fees, for filing, prosecuting, and maintaining any patent applications or patents issuing from the applications relating to jointly developed techniques or know-how for labeling guitars or guitar strings with DNA markers in the United States.

5.9 The Parties agree to confer about ownership, and responsibility for payment of costs and fees for filing, prosecuting, and maintaining any patent applications or patents issuing from the applications relating to jointly developed techniques or know-how for labeling guitars or guitar strings with DNA markers in any international jurisdiction.

ARTICLE 6
CONFIDENTIAL TREATMENT OF INFORMATION

6.1 The Parties agree that all information relating to DNA markers and techniques and know-how for labeling guitars and guitar strings with DNA markers developed under this Agreement shall be considered proprietary and confidential to the Parties, and neither party may disclose such information without the prior written consent of the other party, except that Martin or ADNAS may disclose such information in the context of preparing, filing, and prosecuting patent applications as set forth in Article 5 of this Agreement. In addition to the foregoing, both parties have confidential and proprietary technical and business information that they are willing to disclose to each other for furthering the purpose of this Agreement, all of which shall be disclosed or used under the following terms and conditions:

A. Martin and ADNAS are willing to obtain or disclose to each other confidential and proprietary technical business information of the type and for the purpose mentioned above with the understanding that the party receiving the information (the "Receiving Party") agrees to receive all information in confidence and to use such information solely for the purpose stated above. For the term of this Agreement, each party grants to the other party the limited right to use any Confidential Information disclosed by the party, for the limited purposes of jointly developing techniques and know-how for labeling guitars and guitar strings with DNA markers. The Parties shall not use the Confidential Information for any purposes other than fulfilling their respective duties under this Agreement.

(i). "Confidential Information" means all nonpublic information, whether in oral, written, recorded, electronic, or other form, that the party disclosing the information (the "Disclosing Party") designates as being confidential, or which, under the circumstances surrounding disclosure, the Receiving Party knows or has reason to know should be treated as confidential. Confidential Information includes, but is not limited to the products, services, research, formulas, compilations, programs, devices, concepts, designs, configurations, methods, techniques, strategies, processes, data, knowledge, intellectual property, know-how, and unique combinations of separate items that individually may or may not be confidential, which information is not generally known to the public and either derives economic value, actual or potential, from not being generally known or has a character such that the Disclosing Party has a legitimate interest in maintaining secrecy. Notwithstanding the foregoing, Confidential Information does not include information that, as evidenced by written records (a) was possessed by the Receiving Party before receipt; (b) is or becomes generally available to the public through no fault of the Receiving Party; (c) is rightfully received from a third party owing no duty of confidentiality; or (d) is independently developed by personnel of the Receiving Party.

(ii). It is further agreed and understood, even if the obligations of confidentiality are governed by the exceptions recited above, the Receiving Party shall still retain in confidence the fact that any information or data supplied under this Agreement was obtained from the Disclosing Party as well as any correlation, identity, similarity, or relation between (a) the information and data acquired from the Receiving Party and (b) information which may become part of the public domain or which may be received from a third party.

B. The Parties agree that all Confidential Information received under this Agreement shall be maintained in confidence for a period of five (5) years from the receipt of such Confidential Information. The Receiving Party (i) shall use the same standard of care to protect the confidentiality of the Confidential Information as it uses to protect its own Confidential Information, and in any event no less than a reasonable degree of care, (ii) shall limit the disclosure of Confidential Information to those personnel who have an actual need to know in order to carry out the Receiving Party's obligations under this Agreement and have a written obligation to protect the confidentiality of the Confidential Information, and (iii) shall not reproduce, or disclose the Confidential Information to any third party, in any form without the prior written consent of the other party.

C. The Parties agree that all Confidential Information received or used by the Receiving Party in connection with this Agreement shall remain the sole and exclusive property of the Disclosing Party.

D. Each party agrees to return all materials, including but not limited to written, recorded, or electronic materials, in their possession or control containing, reflecting, or derived from any Confidential Information belonging to the other party upon the request of that party or upon the expiration or termination of this Agreement.

## ARTICLE 7
## ASSIGNMENT

7.1 Neither Party shall have the right to transfer or assign any right or obligation under this Agreement by assignment, merger, acquisition, or consolidation without the prior written consent of the other party.

## ARTICLE 8
## RELATIONSHIP BETWEEN THE PARTIES

8.1 The relationship between the Parties shall be limited to activity relating to the development of techniques or know-how for labeling guitars and guitar strings with DNA markers. Nothing in this Agreement shall be construed to make Martin and ADNAS a partner of one another, nor shall this Agreement be construed to create a general partnership or joint venture between the Parties, nor to authorize either party to act as general agent for the other, nor to permit either party to undertake any contract or obligations for the other party, nor to pledge the credit of the other party.

8.2 Martin agrees not to compete, directly or indirectly, with ADNAS in the manufacture or sale of DNA markers or techniques for labeling or authenticating articles, for any purpose, anywhere in the world.

ARTICLE 9
TERM AND TERMINATION

9.1 This Agreement shall continue until the Parties agree that the development and creation of techniques or know-how for labeling guitars or guitar strings with DNA markers is complete, unless this Agreement is terminated earlier by ether party as provided in this Article.

9.2 Either Martin or ADNAS may terminate this Agreement by giving at least sixty (60) days written notice of termination to the other party.

9.3 In the event of a material breach by either Martin or ADNAS, the non-breaching party shall provide the breaching party with written notice of the breach and an opportunity for up to thirty (30) days after the receipt of such notice to cure the breach. If the breach is not cured to the satisfaction of the non-breaching party, then the non-breaching party may immediately terminate this Agreement by providing the breaching party with a written notice. of termination. Termination of this Agreement shall not relieve the breaching party of obligations or liability resulting from the breach.

9.4 In the event either party shall make a general assignment for the benefit of creditors, or fail to discharge within sixty (60) days any proceedings for the institution of bankruptcy, or receivership, reorganization for the benefit of creditors, or liquidation, the other party may terminate this Agreement upon thirty (30) days written notice.

9.5 In the event of termination or expiration of this Agreement, each party shall retain whatever rights it had in any developments, inventions, know-how, and patents owned as of the effective date of termination and shall be free to exploit such rights for its own accounts without obligation to the other party.

9.6 The rights and obligations of the Parties with respect to Confidential Information shall continue beyond the expiration or termination of this Agreement for the period of time specified in Article 6 above.

ARTICLE 10
NOTICES

All notices required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been given if enclosed in a sealed envelope and deposited in the United States mails, postage prepaid, for delivery by first-class mail, certified, or registered and returned receipt requested, addressed as follows:

To: C.F. Martin & Co., Inc.
510 Sycamore Street
Nazareth, PA 18064
Attention:

Applied
DNA Sciences 25 Health
Sciences Drive Stony
Brook, NY 11790
Attention: CFO

The date of properly given notice shall be the earlier of five (5) days after the notice is mailed or upon actual receipt thereof.

ARTICLE 11
INDEMNIFICATION

11.1 ADNAS shall indemnify, defend and hold harmless Martin from and against any claim, demand, suit, liability, damages, loss, or expense, including reasonable attorneys' fees and costs arising out of or related to any claim of infringement of any third party's intellectual property right in the DNA markers, reagents, or materials provided to Martin from ADNAS as part of the development work underlying this Agreement. For purposes of this Agreement, intellectual property rights include patents, trade secrets, and proprietary information.

ARTICLE 12
DISPUTE RESOLUTION

12.1 The Parties agree to cooperate to effectuate the letter and spirit of this Agreement. The Parties shall attempt in good faith to resolve any questions, issues, or disputes arising out of or relating to this Agreement or to the breach, termination, or validity of this Agreement (collectively any "Dispute"), which may occur in the future, promptly by negotiations between representatives who have authority to settle the Dispute. Such Disputes may arise during the implementation of this Agreement or later.

12.2 If the Parties are unable to resolve any Dispute on their own, the Parties shall submit the Dispute to a sole mediator selected by the Parties or, at any time at the option of a party, to mediation by the American Arbitration Association ("AAA"). If not thus resolved, the Dispute shall be referred to a sole arbitrator selected by the Parties within thirty (30) days of the mediation or, in the absence of such selection, to final and binding arbitration by a sole arbitrator under the AAA Commercial Arbitration Rules in effect on the date of this Agreement. The mediation and arbitration shall be conducted in Nazareth, Pennsylvania.

12.3 Any arbitration award made (i) shall be a bare award limited to a holding for or against a party and affording such remedy as is deemed equitable, just, and within the scope of the Agreement; (ii) may in appropriate circumstances include injunctive relief; (iii) shall be made within four (4) months of the appointment of the arbitrator; and (iv) may be entered in any court. The arbitrator shall determine issues of arbitrability but may not limit, expand, or otherwise modify the terms of the Agreement. The arbitrator shall not have authority to award punitive or other damages in excess of compensatory damages and each party irrevocably waives any claim to such excess damages.

12.4 The Parties, their representatives, other participants, and the mediator and arbitrator shall hold the existence, content, and result of mediation and arbitration in confidence. A request by a party to a court for interim measures shall not be deemed a waiver of the obligation to mediate and arbitrate. The requirement for mediation and arbitration shall not be deemed a waiver of any right of termination under this Agreement and the arbitrator is not empowered to act or make any award other than based solely on the rights and obligations of the Parties prior to any such termination. Each party shall bear its own expenses but those related to the compensation and expenses of the mediator and arbitrator shall be borne equally.

## ARTICLE 13
## GENERAL PROVISIONS

13.1 This Agreement shall be binding on and inure to the benefit of the Parties, including all parents, subsidiaries, or affiliates, along with all persons under the control of any of the foregoing, including without limitation all agents, attorneys, independent contractors, partners, employees, principals, owners, shareholders, officers, directors, executors, and administrators.

13.2 Each party represents and warrants that: (i) it has the full power and authority to enter into this Agreement and perform each of its obligations hereunder; and (ii) no litigation or pending or threatened claims of litigation exist that may adversely affect its ability to perform its obligations hereunder or its rights granted hereunder.

13.3 Neither party shall be responsible or liable to the other party for delays or failures to perform under this Agreement due to force majeure, labor disputes, or other similar or dissimilar causes beyond its control.

13.4 No assignment of this Agreement shall relieve the assignor of any of its liabilities under this Agreement.

13.5 This Agreement constitutes the entire understanding and agreement of the Parties and supersedes any prior understandings, agreements, representations, warranties, statements, and promises, whether written or oral, regarding the subject matter of this Agreement. Neither of the Parties shall be bound by or charged with any oral or written agreement, representation, warranty, statement, promise, or understanding with respect to the subject matter of this Agreement that is not specifically set forth or referred to in this Agreement.

13.6 This Agreement may not be amended, altered, or modified except by an instrument in writing signed by the duly authorized representatives of the Parties.

13.7 No delay or failure on the part of either party to this Agreement in exercising any right, power, or privilege under this Agreement shall impair any such right, power, or privilege or be construed as a waiver or acquiescence thereto; nor shall any single or partial exercise of any right, power, or privilege preclude any other or further exercise thereof or the exercise of any other right, power, or privilege. No waiver shall be valid against either party, unless made in writing and signed by the party against whom enforcement of such waiver is sought, and then only to the extent expressly specified therein.

13.8 The use of headings in this Agreement is merely for convenience and shall have no legal effect, and such headings shall not be referred to in construing any provisions of this Agreement.

13.9 This Agreement may be executed in multiple counterparts each of which shall constitute an original and all of which shall constitute a single agreement.

13.10 This Agreement shall be interpreted and construed, and all legal relations created in this Agreement shall be determined in accordance with the laws of the Commonwealth of Pennsylvania, exclusive of its conflict of laws provisions. Any litigation relating to this Agreement shall be commenced in courts having jurisdiction over Northampton County, Pennsylvania, and each party consents to the jurisdiction of such courts solely for this purpose.

13.11 The Parties agree that if any provision of this Agreement or the application thereof is held to be void or voidable, illegal, unenforceable, or invalid, the remaining provisions or applications of this Agreement shall remain in full force and unaffected. If any provision is held to be void or voidable, illegal, unenforceable, or invalid, by any court, administrative agency, arbitrator, or mediator, the parties agree to negotiate in good faith to amend such provision to conform as nearly as possible, in accordance with applicable law, to the intended purpose and intent of the original provision.

In witness whereof the parties have caused this Agreement to be executed by their duly authorized representatives, effective the date first set forth above.

| C.F. MARTIN & CO., INC. | Applied DNA Sciences |
|---|---|
| /s/ Gregory Paul | /s/ Kurt H. Jensen |
| By: Gregory Paul | By: Kurt H. Jensen |
| Title: Vice President, Corporate Operations | Title: CFO |
| Date: 7/12/11 | Date: 7/18/11 |

**EXHIBIT 10.31**

***Confidential Treatment Requested***

**Certain portions of this exhibit, as indicated by ***, have been omitted, pursuant to a request for confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934. The omitted materials have been separately filed with the Securities and Exchange Commission.**


**AGREEMENT**

THIS AGREEMENT is made as of this 7th day of July, 2011 by and between Applied DNA Sciences, Inc., a company organized and existing under the laws of the State of Delaware, with offices at 25 Health Sciences Drive, Suite 215, Stony Brook, NY 11790 ("ADNAS") and Disc Graphics, a company organized and existing under the laws of the State of Delaware, with offices at 10 Gilpin Avenue, Hauppauge, New York 11788 ("DG") (collectively the "Parties").

**RECITALS**

ADNAS, and its Affiliates, are engaged in the manufacture and sale of DNA security markers nucleic acid markers, among other products, and provide related services such as authentication.

DG, and its Affiliates, are engaged in the manufacture and sale of printing, packaging including but not limited to folding cartons, set-up boxes, flexible packaging, pressure sensitive labels and corrugated.

ADNAS desires to sell to DG, and DG desires to purchase from ADNAS, DNA security markers, of the type hereinafter described, subject to the following terms and conditions.

NOW, THEREFORE, in consideration of the mutual promises, covenants, and conditions herein contained, the Parties hereto agree as follows:

**AGREEMENT**

The Recitals set forth hereinabove are incorporated herein by reference.

**1. DEFINITIONS.**
For purposes of this Agreement, unless the context clearly or necessarily indicates otherwise, the following words or phrases shall have the meanings set forth in Section 1 herein.

1.1. Affiliate. "Affiliate" means an entity that controls, is controlled by, or is under common control with either DG or ADNAS.

1.2. Coatings. "Coatings" means ***.

1.3. Effective Date. "Effective Date" means the date when both Parties have executed this Agreement and all conditions herein contained have been met.

1.4. Products. "Products" mean the DNA security marker that ADNAS will produce for DG pursuant to the Agreement. Product specifically excludes any rapid read component.

1.5. Purchase Order. "Purchase Order" means a Purchase Order meeting the requirements of this Agreement submitted by DG for acceptance by ADNAS.

1.6. Purchase Price. "Purchase Price" means the unit price for Products as set forth in the applicable Product Schedule. Product Schedule A as attached sets forth the initial pricing for the Products and will be amended from time to time, but no more than once per twelve (12) month period.

1.7. Year One. "Year One" means the 12 month period commencing on the Effective Date of this Agreement.

1.8. Year Two. "Year Two" means the 12 month period commencing on the first anniversary of the Effective Date of this Agreement.

1.9. Year Three. "Year Three" means the 12 month period commencing on the second anniversary of the Effective Date of this Agreement.

**2. STATEMENT OF WORK.**

ADNAS hereby appoints DG as its exclusive distributor ("Exclusivity") for North America of a unique DNA security marker specifically for the folding carton offset print sector and non-exclusive distributor of pressure sensitive labels for the duration of the Agreement ("Period of Exclusivity"). ADNAS agrees to supply enough DNA security markers to inoculate up to 33,000 total gallons of Coatings.

During the Period of Exclusivity, ADNAS may sell, offer for sale, or enter into any agreement for the future sale of any DNA security markers to the following companies: ***, ***, ***, ***, ***, their designees, partners or customers and other companies agreed upon in writing by the Parties so long as such assignment does not interfere with Exclusivity herein granted DG;

During the Period of Exclusivity, in the event that DG signs one of their customers (Licensee) to a license agreement and DG does not have ***% of their business, ADNAS reserves the right to enable other parties to sell to Licensee. In the event that a DG customer (Licensee) covered by the Exclusivity requests Products that DG does not or cannot service, then ADNAS reserves the right to enable other parties to sell to Licensee. However, DG shall be entitled to ***% of the license fee charged to any such customers during Year One and ***% of the license fee charged to any such customers for the duration of this Agreement. During this time, ADNAS will support DG on a reasonable efforts basis to increase DG's share of print volume with the Licensee for the folding carton offset print and labels sector.

In order to extend the Period of Exclusivity for the Term of the Agreement, ADNAS must receive a minimum of $*** in revenues from DG (***) by the end of the previous year, paid $*** per quarter in Year Two and each year thereafter as described in Paragraph 6.1 below.

DG shall purchase DNA security markers exclusively from ADNAS during the term of this Agreement or during the Period of Exclusivity, whichever is longer.

**3. TERM AND TERMINATION.**

3.1. Term. The term of this Agreement shall commence on the Effective Date and shall expire three (3) years from that date, given written notice by either party at least ninety (90) days before the end of Year Three. This Agreement can be terminated sooner by the Parties pursuant to the terms detailed in Section 3.2. of this Agreement (the "Term"). Otherwise, this Agreement will automatically renew annually as long as DG fulfills the minimum *** paid quarterly as stated above and unless this Agreement is cancelled by either party by giving ninety (90) days prior written notice to the other party at the end of Year Three.

3.2. The following termination rights are in addition to the termination rights that may be provided elsewhere in the Agreement:

3.2.A. Immediate Right of Termination. Either Party shall have the right to immediately terminate this Agreement by giving written notice to the other Party in the event that the Party does any of the following:

3.2.A.i. Files a petition in bankruptcy or is adjudicated as bankrupt or insolvent, or makes an assignment for the benefit of creditors or an arrangement pursuant to any bankruptcy law, or if the Party discontinues or dissolves its business or if a receiver is appointed for the Party or for the Party's business and such receiver is not discharged within 30 days;

Right to Terminate. ADNAS may terminate this Agreement in the event that DG does not make its quarterly payments to ADNAS in any year after Year One of this Agreement as outlined in Paragraph 6.1 below. ADNAS will provide a written notice of payment delinquency and DG will have 60 days to remedy before this Agreement can be terminated.

**4. PURCHASE ORDERING.**

4.1. **Supply Agreement.** ADNAS shall supply the Products on the terms and conditions set forth in this Agreement. DG shall provide to ADNAS a six (6) month rolling forecast on an ongoing basis.

4.2. Purchase Orders. DG shall issue Purchase Orders to ADNAS for the Products as desired. Each order placed by DG for Products during the term of this Agreement ("Purchase Order") shall be subject to the terms and conditions set forth in this Agreement, and shall constitute a binding agreement by ADNAS to sell said Products to DG on the terms set forth herein.

4.3. Acceptance. ADNAS shall use reasonable commercial efforts to accept all DG Purchase Orders and to acknowledge written acceptance of DG Purchase Orders within five (5) business days of receipt. It is agreed and understood that Purchase Orders will be deemed to have been accepted upon receipt by DG of an acknowledgement by ADNAS of a receipt of a Purchase Order in accordance with the terms and conditions of this Agreement and the applicable Product Schedule. Acceptance of DG purchase Orders by ADNAS shall not be unreasonably withheld.

4.4. Modification, Cancellation, or Schedule Changes by DG. Orders may be modified or cancelled, and scheduled shipments may be deferred or brought forward, only (i) upon DG's prior written notice and ADNAS's written acknowledgement and (ii) upon terms, satisfactory to ADNAS, that compensate ADNAS for all reasonable and customary costs incurred by reason of such modification, cancellation, deferment or expedition of orders, except those modifications, cancellations, or changes caused by Force Majeure.

4.5. Modification, Cancellation, or Schedule Changes by ADNAS. Orders may be modified or cancelled, and scheduled shipments may be deferred or brought forward, only (i) upon ADNAS's prior written notice and DG's written acknowledgement and (ii) upon terms, satisfactory to DG, that compensate DG for all reasonable and customary costs incurred by reason of such modification, cancellation, deferment or expedition of orders, except those modifications, cancellations, or changes caused by Force Majeure.

**5. SHIPMENT AND DELIVERY.**

5.1. ADNAS shall ship Products in accordance with each accepted Purchase Order, subject to the terms and conditions of this Agreement. Delivery of Products shall be made F.O.B. at the loading dock of the ADNAS's US facility in Stony Brook, NY on the dates specified in the applicable Purchase Order. Title to, and risk of loss for, Products shall pass to DG at the time of delivery of possession of the Products to a common carrier.

**6. PRICES; OTHER COSTS; INVOICING.**

6.1 Annual Fee: DG shall pay to ADNAS $*** per year. An initial nonrefundable payment of $*** shall be due and payable upon signing of this Agreement ("Initial Payment") and the balance of $*** shall be due and payable in installments of $*** on ***; $*** on *** and $*** on ***. The Initial Payment includes the cost of creating a unique DNA security marker for DG, an origination fee and formulation into Coatings. The balance of $*** includes the costs of production and delivery of DNA to mark up to *** of Coatings. This Annual Fee shall be due and payable after Year One in quarterly payments of $*** for as long as this Agreement is in effect. The $*** Annual Fee after Year One includes the cost of production of delivery of DNA to mark up to *** of Coatings. Fees paid by DG are exclusive of the costs of shipping and insurance and any applicable federal, state and local taxed, which shall be borne by DG.

6.2 Invoice and Payment. For products other than those covered by this agreement, ADNAS shall invoice DG concurrently with each shipment of Products. A proper invoice shall include ADNAS's name, invoice number and invoice date, DG's relevant Purchase Order number, the total quantity, unit and extended price and the complete mailing address where payment is to be sent. DG shall pay such invoices in full within thirty (30) days after the end of the month the invoice is issued.

**7. FORCE MAJEURE.**

7.1 Neither party shall be liable for its failure to perform hereunder due to any occurrence beyond its reasonable control, including acts of God, fires, floods, wars, terrorism, sabotage, accidents, labor disputes or shortages, governmental laws, ordinances, rules and regulations, whether valid or invalid, inability to obtain material, equipment or transportation, and any other similar or different occurrence; provided, however, that obligations for payment for Products produced and shipped shall not be relieved or suspended by any event or force majeure. The party whose performance is prevented by any such occurrence shall notify the other party thereof in writing as soon as is reasonably possible after the commencement of such occurrence, and shall promptly give written notice to the other party of the cessation of such occurrence. The party affected by such occurrence shall use reasonable commercial efforts to remedy or remove such event of force majeure as expeditiously as possible.

**8. INTELLECTUAL PROPERTY.**

Ownership of Intellectual Property. Each party acknowledges that it shall not acquire any Intellectual Property Rights under this Agreement in the products or associated materials of the other, and all rights therein are strictly reserved. Any goodwill arising in the course of this Agreement in respect of the products of either party shall accrue solely for the benefit of that party.

Inventorship shall be determined in accordance with principles of equitability and contributions made by the inventors of the two parties.

8.1 Confidentiality. The parties acknowledge that each party's Proprietary Information set forth in Section 8.1 contains valuable trade secrets that are the sole and exclusive property of the other party. Each party agrees that it will maintain and protect the confidentiality of the other party's Proprietary Information using the same standard of care that such party uses to protect its own Proprietary Information, which in no event shall be less than reasonable care. The obligation to keep each party's Proprietary Information confidential under this Section 8 shall survive the termination or expiration of this Agreement.

**9. CONFIDENTIALITY.**

In the course of the performance of this Agreement, the one Party ("Disclosing Party") may furnish the other Party ("Receiving Party") with confidential and proprietary information and trade secrets (collectively, "Confidential Information"). Confidential Information of the Disclosing Party is deemed to include, among other things, customer lists, proposed or planned products or services, product designs or improvements, marketing plans, financial and accounting records, pricing, cost and profit figures, forecasts, projections and Confidential Information of third parties, that are observed, identified or disclosed under or as a result of this Agreement. The Receiving Party will not disclose the Confidential Information, must immediately return it upon expiration or termination of this Agreement, and must keep it in strict confidence and not use it for any purpose other than the Parties' respective performance under this Agreement. The Disclosing Party will use reasonable efforts to mark or cause to be marked all materials containing its Confidential Information to clearly indicate ownership of the materials and their confidential status; however, failure to mark does not by itself disqualify information from being Confidential Information if other factors or circumstances, or a Party's course of performance, clearly indicate to the Receiving Party at the time of disclosure or the Receiving Party acknowledges that the information is confidential. The Receiving Party recognizes that the Confidential Information of the Disclosing Party (l) was designed and developed by the Disclosing Party at great expense and over lengthy periods of time; (2) is secret, confidential and unique; (3) constitutes the exclusive property and/or trade secrets of the Disclosing Party; and (a) that any use of the Confidential Information by the Receiving Party for any purpose other than in accordance with this Agreement and in furtherance of obligations hereunder would be wrongful and would cause irreparable injury to the Disclosing Party for which damages are not an adequate remedy. The restrictions and obligations in this Section concerning confidentiality will survive the expiration or termination of this Agreement for a period of three (3) years. The obligations of the Parties herein will not apply to information which: (i) was known to the Receiving Party prior to receipt thereof from the Disclosing Party, as evidenced by the written records of the Receiving Party; (ii) was disclosed to the Receiving Party in good faith by a third party who is in lawful possession of and who had the right to make such disclosures; (iii) became part of the public domain, by publication or otherwise, through no fault of the Receiving Party; or, (iv) was independently developed by the Receiving Party as evidenced by the Receiving Party's written records. Each Party understands and agrees that, in the event that it violates any of the Confidentiality provisions of this Section 9, the other Party will suffer immediate and irreparable harm that cannot be accurately calculated in monetary damages. Consequently, notwithstanding anything to the contrary in this Agreement, the violating Party acknowledges and agrees that the other Party shall be entitled to immediate injunctive relief, either by temporary or permanent injunction, to prevent such a violation. The violating Party acknowledges and agrees that this injunctive relief shall be in addition to any other legal or equitable relief to which the other Party would be entitled.

**10. PRODUCT WARRANTY AND DISCLAIMER.**

10.1. Product Warranty. ADNAS warrants that Products manufactured hereunder will be free from defects in workmanship for a period of 2 years from the date of delivery of the Products to DG but ADNAS's sole liability under such warranty shall be limited to replacing Product which ADNAS accepts as having been defective in workmanship. ADNAS shall at no charge perform Quality Control tests as needed to validate the authenticity of the printed packages and pressure sensitive labels and Authenticity tests as mutually agreed upon by both parties. As part of this testing DG will provide ADNAS folding cartons and pressure sensitive labels with and without ADNAS Products for the purpose of blind testing. ADNAS shall promptly notify DG in writing of any noncompliance in the Products, which notification shall describe the noncompliance in sufficient detail to permit DG to isolate the cause for defect. Upon notification from ADNAS, ADNAS will provide DG with instructions on returning the Product under warranty claim. DG shall promptly notify ADNAS in writing of any noncompliance in DG's manufacturing process as it relates specifically to Products, which notification shall describe the noncompliance in sufficient detail to permit ADNAS to isolate the cause for defect.

10.2. This warranty does not apply to: (i) any Products which have been repaired by DG or a third party; (ii) any Products which have been altered or modified in any way by DG or third party; or (iii) any products which have been subject to misuse, abnormal use or neglect.

10.3. Disclaimer. THE WARRANTY STATED ABOVE IS IN LIEU OF ALL OTHER WARRANTIES, CONDITIONS OR OTHER TERMS, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF TERMS AS TO QUALITY, FITNESS FOR PARTICULAR PURPOSE, MERCHANTABILITY OR OTHERWISE WHETHER IMPLIED BY CUSTOM OR LAW. Without limiting the foregoing disclaimer, DG understands, acknowledges and agrees that ADNAS does not warrant any parts, components or other materials used in the manufacture of the Products. , ADNAS will ensure the compatibility of its Products with DG existing equipment only as it relates to the application of Coatings.

**11. REPRESENTATIONS AND WARRANTIES; LIMITATION OF LIABILITY.**

11.1. Representations and Warranties of ADNAS. ADNAS represents and warrants that the Products that are delivered to DG hereunder shall:

11.1.A. Conform in all respects with the requirements of this Agreement, including the then current specifications for such Product, and the applicable Purchase Order;

11.1.B. Be free and clear of all liens and encumbrances, or other defects in title.

11.1.C. The foregoing representations and warranties shall survive inspection, delivery and payment for the Products, and shall be for the benefit of DG and its customers.

11.2. Other Representations and Warranties. Each of the parties hereby represents and warrants to the other that: (a) it has full power and authority required to enter into, execute and deliver this Agreement, to carry out its obligations hereunder and to perform the transactions contemplated; (b) this Agreement has been duly executed and delivered by, is the valid and binding obligation of, and is enforceable against, such party in accordance with its terms; and (c) the execution, delivery and performance of this Agreement by such party does not conflict with or violate any other agreement to which it is a party or by which it is bound, or any applicable law to which it is bound or subject.

11.3. Neither party shall, without the prior written consent of the other party, use in advertising, publicity, or otherwise, the name, trademark, logo, symbol, or other image of the other party.

11.4. Warranty and Liability Limitation. EXCEPT AS EXPRESSLY PROVIDED IN SECTION 12 (INDEMNIFICATION) OF THIS AGREEMENT, IN NO EVENT SHALL EITHER PARTY BE LIABLE TO THE OTHER PARTY FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL OR PUNITIVE DAMAGES OF ANY KIND OR NATURE ARISING OUT OF OR RELATING TO THIS AGREEMENT OR CONNECTED WITH OR RESULTING FROM THE MANUFACTURE, SALE, DELIVERY, RESALE, REPAIR, REPLACEMENT, OR USE OF ANY PRODUCTS OR THE FURNISHING OF ANY SERVICE OR PART THEREOF, WHETHER SUCH LIABILITY IS BASED IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, EVEN IF SUCH PARTY HAD BEEN WARNED OF THE POSSIBILITY OF ANY SUCH DAMAGES. In the event ADNAS supplies to DG substandard product whether knowingly or unknowingly, then DG will not be restricted by this clause. However, should DG brings a frivolous lawsuit and does not prevail then DG shall be responsible for reimbursing ADNAS for any and all costs incurred, including but not limited to attorneys fees, Product authentication fees, production costs and any other costs or expenses incurred as a result of DG's exercise of this clause.

11.5. ADNAS warrants that its Products will be free of defects and one hundred percent (100%) compatible with DG applications in Coatings as applied to DG's folded carton offset print and pressure sensitive labels business.

**12. INDEMNIFICATION.**

12.1.A. Indemnification by ADNAS. ADNAS shall indemnify, defend and hold harmless, DG and its Affiliates, and DG's and such entities' respective officers, directors, agents, insurers, employees, stockholders, and customers, from and against all claims, suits, liability and expense (including but not limited to reasonable attorneys' fees) (each a "Liability"), whether or not such Liability is stated as a product liability claim, a strict liability claim or other similar claim, that is caused by or based upon any: (a) breach by ADNAS of any of the representations or warranties in Section 11, including, without limitation, any Liability based upon any alleged defect in Products resulting from ADNAS's failure to meet the specifications or quality analysis standards for such Product; (b) material breach by ADNAS of any other provision of this Agreement; or (c) strict liability, negligence, misconduct, or violation of any applicable law, rule or regulation by ADNAS or any of its Affiliates in the performance of ADNAS's obligations under this Agreement; provided, however, that DG shall: (i) give ADNAS prompt notice of any such Liabilities; (ii) give ADNAS the right to assume full and sole control of the defense or settlement of the same through ADNAS's counsel; (iii) give ADNAS all information in its possession relating to such Liabilities; (iv) give its authorization for and assistance (at ADNAS's cost) in such defense; and (v) give ADNAS the right to approve any settlement, which approval shall not be unreasonably withheld;

12.2. Indemnification by DG. DG shall indemnify, defend and hold harmless ADNAS and its Affiliates, and ADNAS's and such entities' respective officers, directors, agents, insurers, employees, and shareholders from and against all Liabilities relating to any product manufactured or sold by DG that incorporates Products to the extent such Liabilities are based upon allegations of personal injuries, death, or property damages or loss proximately caused by the use of a product manufactured or sold by DG, unless the proximate cause is alleged to relate specifically to the Product supplied by ADNAS, whether such Liability is stated as a product liability claim, a strict liability claim or other similar claim; provided, however, that:

12.2.A. ADNAS shall: (i) give DG prompt notice of any such Liabilities; (ii) give DG the right to assume full and sole control of the defense or settlement of the same through DG's counsel; (iii) give DG all information in its possession relating to such Liabilities; (iv) give its authorization for and assistance (at DG's cost) in such defense; and (v) give DG the right to approve any settlement, which approval shall not be unreasonably withheld;

12.2.B. DG shall not, however, indemnify, defend or hold harmless the ADNAS Indemnities for any matter which would give rise to a claim by DG for indemnity from ADNAS under Section 12.1; and

12.2.C. DG shall have sole and unqualified discretion to select attorneys to defend any Liability which is the subject of DG's obligations hereunder, and notwithstanding anything contained herein to the contrary, DG's Liability for attorney fees will only apply to DG-selected attorneys.

12.2.D. ADNAS shall not, however, indemnify, defend or hold harmless the DG Indemnities for any matter which would give rise to a claim by ADNAS for indemnity from DG under Section 12.2; and

12.2.E. ADNAS shall have sole and unqualified discretion to select attorneys to defend any Liability which is the subject of ADNAS's obligations hereunder, and notwithstanding anything contained herein to the contrary, ADNAS's Liability for attorney fees will only apply to ADNAS-selected attorneys.

**13. ADVERTISING AND PROMOTION**

13.1 DG and ADNAS shall be entitled to advertise and promote the Products, but neither party shall not use any advertising materials or promotional literature without the prior written consent of the other party which consent shall not be unreasonably withheld. Both parties agree to review any advertising or promotional literature provided by the other party within seven (7) business days of its receipt.

13.2 DG agrees to recognize and acknowledge ADNAS as an innovator of DNA security markers for folding carton offset print in all information, publications, data, advertising, marketing, promotional materials, and publicity, "Powered by ADNAS".

13.3 ADNAS shall, where the parties agree, participate with DG in fairs and exhibitions at ADNAS' own cost.

**14. MISCELLANEOUS PROVISIONS**

14.1 Export Control. Anything contained in this Agreement to the contrary notwithstanding, the obligations of the Parties hereto and of the subsidiaries of the Parties shall be subject to all laws, present and future and including export control laws and regulations, of any government having jurisdiction over the Parties hereto or the subsidiaries of the Parties, and to orders, regulations, directions, or requests of any such government. Each party shall undertake to comply with and be solely responsible for complying with such laws applicable to such party.

14.2 Notice and Payment. Any notice required to be given under this Agreement shall be in writing and delivered personally to the other designated party at the below stated address or mailed by certified, registered or Express mail, return receipt requested or by Federal Express.

14.3 Correspondence Address for DG:

Disc Graphics
ATTN: V.P. Finance
10 Gilpin Avenue
Hauppauge, New York 11788

14.4 Correspondence Address for ADNAS:

Applied DNA Sciences, Inc.
ATTN: CFO
25 Health Sciences Drive, Suite 215,
Stony Brook, NY 11790

14.5 Either party may change the address to which notice or payment is to be sent by written notice to the other under any provision of this paragraph.

14.6 Jurisdiction and Disputes. This Agreement shall be governed in accordance with the laws of the State of New York. All disputes under this Agreement shall be resolved by litigation in the courts of the State of New York including the federal courts therein and the Parties all consent to the jurisdiction of such courts, agree to accept service of process by mail, and hereby waive any jurisdictional or venue defenses otherwise available to it.

14.7 Severability. If any term, clause or provision hereof is held invalid or unenforceable by a court of competent jurisdiction, such invalidity shall not affect the validity or operation of any other term, clause or provision and such invalid term, clause or provision shall be deemed to be severed from the Agreement.

14.8 Written Modifications. No amendment, modification or release from any provision of this Agreement, the Product Schedule attached hereto or Purchase Orders issued hereunder shall be of any force or effect unless it is in writing and signed by both parties hereto and specifically refers to this Section 14.8.

14.9 No Assignment. This Agreement shall not be assigned by either party without prior written consent of the other party and any attempt to do so shall be void. Notwithstanding the foregoing, either party must make an assignment to an affiliate, subsidiary or parent company or must assign the Agreement to a successor-in-interest through a merger or sale of assets or stock upon notice to the other party but without that party's consent.

14.10 No Waiver. A failure to exercise any right hereunder with respect to any breach shall not constitute a waiver of such right, power, or authority to act or to create any obligation, express or implied, on behalf of the other.

14.11 Integration. This Agreement constitutes the entire understanding of the Parties, and revokes and supersedes all prior agreements between the Parties and is intended as a final expression of their Agreement. This Agreement shall not be modified or amended except in writing signed by the Parties hereto and specifically referring to this Agreement. This Agreement shall take precedence over any other documents which may conflict with this Agreement.

IN WITNESS WHEREOF, the Parties hereto, intending to be legally bound hereby, have caused this Agreement to be executed by their duly authorized officers or representatives.

| | |
|---|---|
| Disc Graphics<br>("DG") | Applied DNA Sciences, Inc.<br>("ADNAS") |
| /s/ Margaret Krumholz<br>By: Margaret Krumholz<br>Title: President<br>Date: 7/8/11 | /s/ Kurt H. Jensen<br>By: Kurt H. Jensen<br>Title: CFO<br>Date:7/8/11 |

**PRODUCT SCHEDULE A**

| PRODUCT/SERVICE | TYPE | QUANTITY | PRICE |
|---|---|---|---|
| DNA SECURITY MARKER | | | *** * |
| AUTHENTICATION | SERVICE | Per Request | *** ** |
| EXPERT WITNESS REPORT | SERVICE | Per Request | *** |

*** DG shall receive *** of this fee for all DG customers that agree to pay licensing "DNA Marker Security"**
**** DG authentications are included in fee; authentication service prices are for DG customers**

**EXHIBIT 10.32**

**EMPLOYMENT AGREEMENT**

AGREEMENT made as of the 11th day of July, 2011, by and between APPLIED DNA SCIENCES, INC., a Delaware corporation (the "Company"), and JAMES A. HAYWARD ("Executive").

1. Employment. Executive shall continue to be employed as the Chief Executive Officer of the Company, which employment will be subject to and governed by this Agreement.

1.1 Duties and Responsibilities. Executive will have the authority, duties and responsibilities customarily associated with the position of Chief Executive Officer, consistent with the Company's by-laws and applicable law. Executive will have such additional duties and responsibilities commensurate with his position as the Company's Board of Directors (the "Board") may assign to him from time to time. Executive will report directly to and be subject to the control and direction of the Board. The Company will use its reasonable efforts to ensure that Executive will continue to be a member of the Board during the period of his employment under this Agreement. At the request of the Board, Executive shall serve as an officer and director of the Company's subsidiaries and other affiliates without additional compensation. Executive will observe and adhere to all applicable written Company policies and procedures in effect from time to time, including, without limitation, policies on business ethics and conduct, and policies on the use of inside information and insider trading.

1.2 Term. Unless sooner terminated pursuant to Section 3, the term of this Agreement (the "Term") will begin July 1, 2011 and end June 30, 2014. Thereafter, the Term will automatically be renewed for successive one-year periods unless either party provides written notice of non-renewal to the other at least 90 days before the end of the then-current Term.

1.3 Full Time. Executive shall devote all of his business time and attention to the performance of his duties and responsibilities under this Agreement. Executive will not render services to others for compensation or, without the written consent of the Board (which should not be unreasonably withheld), serve on the board of directors or other governing body of another for profit entity, provided, however, that the Company hereby consents to Executive's continuing to engage in the other business activities listed on Exhibit A hereto, so long as such activities do not conflict or interfere with Executive's obligations and covenants under this Agreement or Executive's ability to fully and properly perform the duties and responsibilities of his employment under this Agreement. Executive may engage in personal, charitable and passive investment activities, so long as such activities do not conflict or interfere with his ability to perform the duties and responsibilities of his employment under this Agreement.

1.4 Location of Employment. Executive's principal place of employment will be at the Company's principal offices, currently located in Stony Brook, New York. The Company will not relocate the Executive's office beyond a 75 mile radius of the then current location without Executive's consent. Notwithstanding the foregoing, Executive acknowledges that he will have to engage in business travel in connection with the performance of his duties and in accordance with the needs of the Company.

2. Compensation.

2.1 Base Salary. The Company will pay base salary ("Base Salary") to Executive, in accordance with its regular payroll practices, at an initial annual rate of $225,000. The Board and/or the Compensation Committee of the Board (the "Compensation Committee") will review Executive's Base Salary annually. The Board or the Compensation Committee, acting in its discretion, may increase (but may not decrease) the annual rate of Executive's Base Salary. If, for any calendar quarter beginning after the date hereof, the Company has revenues in excess of $1 million, then, effective as of the first day of the next succeeding quarter, Executive's annual rate of Base Salary will be increased to $350,000.

2.2 Annual Bonus Opportunity. The Board or Compensation Committee may award an annual bonus to the Executive in such amount and upon such terms and conditions as the Board or the Compensation Committee, acting in its discretion, determines (provided that the Executive will not be treated less favorably with respect to annual bonuses than other executives of the Company). The bonus for any fiscal year will be payable to the Executive as soon as practicable after the end of the year, but in no event later than the 15th day of the third calendar month following such fiscal year.

2.3 Initial Cash Incentive Award. The Company will pay a cash bonus to Executive of up to $750,000, to be earned as follows: $300,000 for the first fiscal year ending after the date hereof in which the Company's revenue equals at least $6 million, plus $75,000 for each $2 million of revenue in excess of $6 million. For example, if the Company's has $8 million of revenue in the first fiscal year in which its revenues equal or exceed $6 million, the Executive will be entitled to $375,000; and if the Company has revenue of $12 million in the next succeeding fiscal year, then Executive will earn an additional $225,000; and, if the Company has $14 million of revenue in the second succeeding fiscal year, the Executive will earn an additional $225,000 as of the end of that year, at which point, Executive will have earned the $750,000 aggregate maximum incentive amount under this subsection 2.3.

2.4 Initial Equity Awards. Simultaneously with Executive's execution and delivery of this Agreement, the Company will (a) issue 15 million shares of the Company's common stock to Executive, subject to Executive's making a cash payment to cover the Company's withholding tax obligations with respect to such award of shares, and (b) grant to Executive options to purchase 40 million shares, with an exercise price per share equal to the closing price per share on the date of such execution and delivery, which options shall vest at the rate of 25% on the grant date and 37.5% on each of the next two anniversaries of the grant date, subject to Executive's continuous employment through the applicable vesting date, provided, however, that (a) no portion of the vested option will be exercisable prior to the execution of this Agreement by Executive, and (b) if the Company's revenues for any fiscal quarter beginning after the date hereof are at least $1 million more than the Company's revenues for the immediately preceding fiscal quarter, then vesting of the next 37.5% installment will accelerate (such that, if the $1 million increase is met in at least two quarters before the second anniversary of the option grant date, all of the options will have become fully vested as of the end of the second quarter for which the $1 million increase is met). Notwithstanding the foregoing, exercisability of the option is further conditioned upon shareholder approval (at the next annual meeting of shareholders) of the Board's amendment increasing the number of shares of Company common stock available for issuance under the Company's 2005 Incentive Stock Plan from 100 million shares to 350 million shares and the number of shares of Common Stock that can be covered by awards made to any participant in any calendar year from 25,000,000 to 50,000,000 shares, and if the amendment is not so approved, the option shall expire.

2.5 Annual Equity Awards. Executive will be eligible for annual equity awards under the Company's equity incentive plan on a basis that is not less favorable than the annual equity awards being made generally to other senior executives of the Company.

2.6 Employee Benefits. Executive will be eligible to participate in such retirement, welfare and other employee benefit and fringe benefit plans, arrangements, programs and perquisites as are provided by the Company from time to time to or for the benefit of the Company's other executives, on comparable terms and conditions. Executive shall be entitled to five weeks of vacation time during each calendar year of his employment, subject to the Company's vacation policies and procedures. Executive will be entitled to carry over unused vacation for any year and will be entitled to payment for any accrued and unused vacation.

2.7 Reimbursement of Business Expenses. Executive is authorized to incur reasonable expenses in carrying out his duties and responsibilities of his employment under this Agreement, and the Company will promptly reimburse him for all expenses that are so incurred upon presentation of appropriate vouchers or receipts, subject to the Company's expense reimbursement policies applicable to senior executives generally as in effect from time to time. Executive will be entitled to first class travel on flights that are scheduled to exceed three hours. The Company will pay or reimburse Executive for the cost of computer, phone and other equipment and services reasonably required in order to enable Executive to conduct business from his home outside of regular business hours.

2.8 Other Items. The Company will pay or reimburse Executive for the payment of up to $1,500 per month for the costs associated with an automobile used by Executive and, in addition, will provide Executive with a gas credit card (the charges on which will not be taken into account in applying the $1,500 monthly automobile allowance). The Company will pay or reimburse Executive for the payment of an annual or monthly gym membership and for at least one airline club membership. The Company will also pay for the use of an outside driver for Executive for up to 20 hours per week.

3. Termination of Employment Before End of Term.

3.1 Termination by Company for Cause. The Company may terminate Executive's employment before the end of the Term for Cause if Executive: (a) is convicted of or pleads nolo contendre to a felony, (b) commits fraud or a material act or omission involving dishonesty affecting the assets, business or reputation of the Company or any of its subsidiaries or affiliates, (c) willfully fails or refuses to carry out the material responsibilities of his employment, as reasonably determined by the Board, (d) engages in gross negligence, willful misconduct or a pattern of behavior that has had or is reasonably likely to have a significant adverse effect on the Company or the ability of Executive to perform the duties and responsibilities of his employment, or (e) willfully engages in any act or omission that is in material violation of Company policy, including, without limitation, Company policy on business ethics and conduct, and Company policy on the use of inside information and insider trading; provided, however, that, if the conduct giving rise to termination for Cause is curable without material harm to the business or assets of the Company, the Executive will be afforded an opportunity to effect such a cure within 30 days after notice of termination and thereby avoid a termination for Cause based upon such conduct.

3.2 Resignation by Executive. Executive may terminate his employment before the end of the Term, subject to at least 60 days' prior written notice to the Company. Upon receipt of such notice, the Company may relieve Executive of some or all of his duties and/or set an earlier termination date.

3.3 Termination by Company without Cause. Company may terminate Executive's employment without Cause before the end of the Term, subject to 60 days prior written notice to Executive. Following such notice, the Company may relieve Executive of some or all of his duties, provided that Company continues to pay Executive through the end of the notice period. For the purposes hereof, the termination of this Agreement at the expiration of the initial Term or the expiration of either of the first two renewal Terms (if any) due to non-renewal by Company pursuant to Section 1.2 will be deemed to be a termination of Executive's employment by Company without Cause.

3.4 Termination Due to Disability or Death. Company may terminate Executive's employment before the end of the Term due to "Disability" if Executive is unable to substantially perform the customary duties and responsibilities of his employment for at least 120 consecutive calendar days or 150 or more calendar days during any 365 calendar day period by reason of physical or mental illness, injury, impairment or incapacity. No minimum notice is required for a termination due to Executive's Disability. If Executive dies before the end of the Term, his employment will terminate on the date of his death.

3 . 5 Termination by Executive for Good Reason. Executive may terminate his employment for Good Reason at any time, subject to applicable notice and cure conditions described below. For this purpose, the term "Good Reason" means any of the following: (a) a material adverse change by Company of Executive's status or position as the Chief Executive Officer, including, without limitation, a material diminution of his position, duties, responsibilities or authority or the assignment to him of duties or responsibilities that are materially inconsistent with his status or position; (b) a reduction by the Company of Executive's annual Base Salary or failure to pay same ; (c) a breach by the Company of any of its material obligations under this Agreement; (d) relocation of Executive without Executive's consent beyond a 75 mile radius of Executive's then principal place of employment in violation of this Agreement; or (e) in connection with a Change in Control, the failure or refusal by the successor or acquiring company to expressly assume the obligations of Company under this Agreement. As a condition to terminating his employment for Good Reason, Executive must, within 60 days after the occurrence of the event or condition giving rise to such termination, provide written notice to the Company (or the successor or acquiring company) of his desire to terminate for Good Reason, specifying the nature of the act or omission that Executive deems to constitute Good Reason. The Company shall have 30 days after receipt of such notice to review and, if required, correct the situation (and thus prevent Executive's termination for Good Reason).

3.6 Definition of Change in Control. For the purposes hereof, a "Change in Control" will be deemed to have occurred if and when, after the date of this Agreement,

(a) any person, as such term is used in Section 13(d) and 14(d) of the Securities Exchange Act of 1934 (the "Exchange Act"), other than (1) the Company, (2) any trustee or other fiduciary holding securities under an employee benefit plan of the Company, (3) the Executive, or (4) any entity owned, directly or indirectly, by the shareholders of the Company in substantially the same proportions as their ownership of stock of the Company, is or becomes the beneficial owner (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such person any securities acquired directly from the Company or its affiliates) representing 30 percent or more of the combined voting power of the Company's then outstanding voting securities;

(b) during any period of two consecutive years, individuals who at the beginning of such period constitute the Board and any new director (other than a director designated by a person who has entered into an agreement with the Company to effect a transaction described in clause (a), (c) or (d) of this subsection) whose election by the Board or nomination for election by the company's stockholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof;

(c) there is consummated a merger or consolidation of the Company or any direct or indirect subsidiary of the Company with any other entity, other than (1) a merger or consolidation which results in the directors of the Company immediately prior to such merger or consolidation continuing to constitute at least a majority of the board of directors of the Company, the surviving entity or any parent thereof or (2) a merger or consolidation effected to implement a recapitalization of the Company (or similar transaction) in which no person (other than persons described in any of parts (1) – (4) of subsection (a) above) is or becomes the beneficial owner, directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such person any securities acquired directly from the Company or its affiliates) representing 30% or more of the combined voting power of the Company's then outstanding securities; or

(d) the complete liquidation or dissolution of the Company or the sale or other disposition by the Company of all or substantially all of the Company's assets, other than a sale or disposition by the Company of all or a majority of the Company's assets, income or revenue to an entity, at least 70% of the combined voting power of the voting securities of which are owned by shareholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale.

4. Payments and Benefits Upon Termination of Employment.

4.1 Termination of Employment by Company without Cause or by Executive for Good Reason. Except as provided in Section 4.4 (relating to the effect of a Change in Control), if Executive's employment is terminated by Company without Cause pursuant to Section 3.3 or by Executive for Good Reason pursuant to Section 3.5, then, subject to Section 5, Executive shall receive the following payments and benefits:

(a) a single cash payment equal to the sum of (1) the unpaid amount, if any, of Base Salary previously earned by Executive through the date of his termination, and (2) the unpaid amount, if any, of the annual bonus earned by Executive for the preceding year;

(b) payment of any business and other expenses described in Sections 2.7 and 2.8 that were previously incurred but not reimbursed and are otherwise eligible for reimbursement;

(c) any payments or benefits payable to Executive or his covered spouse, or a dependent or beneficiary of Executive, under and in accordance with the provisions of any employee benefit plan of the Company;

(d) a cash payment equal to the product of (1) the greater of (A) the annual bonus award (if any) that would have been earned by Executive for the fiscal year in which his employment terminates if his employment had continued through the end of such year, and (B) the annual bonus earned by Executive for the preceding year, multiplied by (2) a fraction, the numerator of which is the number of days elapsed from the beginning of that fiscal year until the date his employment terminates, and the denominator of which is 365 ("Pro Rata Bonus"), which payment will be made when the bonus for such year would otherwise have been paid;

(e) an amount of severance equal to the greater of (1) 3 times Executive's annual rate of Base Salary in effect at the time his employment terminates, or (2) 2 times the sum of (A) such annual rate of Base Salary, plus (B) the annual bonus, if any, earned by Executive for the year preceding the year of termination, or, if greater, the target bonus, if any, for the year of termination, which amount (the greater of (1) and (2)) shall be payable ratably for a period of 24 months following such termination of employment as if it were salary payable in accordance with the Company's normal payroll practices, provided, however, that the initial installment will begin on the 60th day following the date on which Executive's employment terminates and will include the payments that would otherwise have been made during such 60-day period;

(f) any vested stock options and stock appreciation rights held by Executive at the time of his termination of employment will remain exercisable by the Executive or his beneficiary, as the case may be, for a period of at least three years following the termination of his employment (but in no event later than the stated expiration date of such option or stock appreciation right;

(g) if the Executive and/or his covered spouse or dependents elect COBRA continuation coverage as a result of the termination of Executive's employment, then the Company will pay the full amount of the COBRA premium for such coverage for a period of up to 18 months following the termination of Executive's employment, it being understood that Executive may be taxable on the value of such coverage in order to enable the Company to avoid any penalty or additional tax that may otherwise be incurred by reason of the provision of such subsidized COBRA coverage; and

(h) if the Executive is covered by Company-provided life insurance, continuing life insurance benefits for 24 months following the termination of his employment as if Executive's employment had continued.

4 . 2 Termination Due to Disability or Death. If Executive's employment is terminated pursuant to Section 3.4 by reason of his death or Disability, then, subject to Section 5, Executive (or, as applicable, his spouse, covered dependents and/or beneficiaries) shall receive the payments and benefits described in Sections 4.1(a) – (d) and 4.1(g), and any vested stock options held by Executive at the time of his termination of employment will remain exercisable by the Executive or his beneficiary, as the case may be, for a period of at least three years following the termination of his employment (but in no event later than the stated expiration date of the option, as such date may be extended without causing the option to become subject to Section 409A of the Code).

4.3 Termination by Company for Cause or Resignation by Executive. If Company terminates Executive's employment for Cause pursuant to Section 3.1 or if Executive resigns his employment pursuant to Section 3.2 (other than a resignation for Good Reason pursuant to Section 3.5), Executive shall not be entitled to any payments or benefits except for those described in section 4.1 (a)-(c).

4.4 Effect of Change in Control.

(a) Vesting of Certain Equity Awards. If a Change in Control occurs, then immediately prior to such Change in Control, Executive will become fully vested in any then outstanding unvested stock options, restricted stock or other equity incentive awards for shares of Company stock, unless and except to the extent that they are assumed by or otherwise converted into economically equivalent stock options, restricted stock or other equity incentive awards with respect to shares of stock of the acquiring company, the surviving company or any of its or their affiliates.

(b) Termination of Employment in Connection with Change in Control. If Executive's employment is terminated by Company without Cause or by Executive for Good Reason within two years after a Change in Control or within 6 months prior to a Change in Control, then (1) the amount of severance payable to Executive pursuant to Section 4.1(e) (or, as the case may be, the amount remaining to be paid to Executive at the time of a Change in Control occurring within 6 months after the termination of Executive's employment) will be payable to Executive in a single sum cash payment on the 60th day following his termination of employment (or, if Executive's employment terminated before the Change in Control, on the later of the date of the Change in Control or the date which is 60 days after the date Executive's employment terminated); and (2) any stock options and stock appreciation rights that are outstanding at the time of such termination of employment will remain exercisable for at least three years following the date on which the Change in Control occurs or, if later, the date Executive's employment terminates (but in no event later than the stated expiration date of such option or stock appreciation right).

5. Release of Claims; Restoration of Payments; Section 280G.

5.1 Release. Notwithstanding anything to the contrary contained herein, as conditions to the Company's being obligated to make the separation payments and provide the benefits described in Sections 4.1(d) – 4.1(h) (and, by extension, Section 4.2)), (a) within 60 days after the date of Executive's termination, the Company must have received from Executive an executed valid general release of claims substantially in the form attached hereto as Exhibit A, that is no longer subject to revocation, and (b) on or before Executive's termination date, the Executive shall have (1) turned over all Company property in his possession or control to the Company, and (2) resigned from the Board of the Company and the board of directors or comparable body of every subsidiary or other Affiliate of the Company, and every committee thereof. Executive shall not be entitled to receive such severance payment and benefits if the conditions described in the preceding sentence are not timely satisfied.

5.2 Restoration of Payments. Executive's right to receive any separation payments and benefits pursuant to this Agreement shall be subject to his compliance with the restrictive covenants referenced or set forth in Section 6 and repayment pursuant to this Section. If Executive violates or is in breach of any said restrictive covenants, then (a) Executive shall not be entitled to any further separation payments and benefits under this Agreement, (b) Executive shall be obligated to immediately return to the Company any separation payments and the value of any separation benefits previously received hereunder, and (c) Executive shall have no further rights or entitlements under this Agreement. This Section shall not in any manner supersede or limit any other right the Company may have to enforce or seek legal or equitable relief with respect to a violation or breach by Executive of any of said restrictive covenants.

5.3 Section 280G.

(a) General. If any payment or benefit received or to be received by Executive in connection with or contingent on a change in ownership or control of the Company, within the meaning of Section 280G of the Code, whether or not in connection with Executive's termination of employment, and whether or not pursuant to this Agreement (such payments or benefits being referred to as the "Total Payments") will be subject to an excise tax as provided for in Section 4999 of the Code (the "Excise Tax"), then Executive will be entitled to receive either (a) the full amount of the Total Payments, or (b) a portion of the Total Payments having a value equal to one dollar less than three times Executive's "base amount" (as such term is defined in Section 280G(b)(3)(A) of the Code), whichever of clauses (a) and (b), after taking into account applicable federal, state, and local income taxes and the Excise Tax, results in the receipt by Executive on an after-tax basis, of the greatest portion of the Total Payments. For purposes of determining the after-tax amounts in (a) and (b) above, Executive will be deemed to pay federal, state and local income tax at the highest marginal rates, net of the maximum reduction in federal income taxes which could be obtained from deduction of such state and local taxes. If there is a reduction of the Total Payments pursuant to the foregoing, then, unless the parties agree otherwise, such reduction will occur in the following order: (A) any cash severance payable under this Agreement; (B) any other cash amount payable to Executive; (C) any benefit valued as a "parachute payment;" and (D) acceleration of vesting of any equity awards.

(b) Determinations. All determinations under this subsection must be made by a nationally recognized accounting firm, which must not be the auditor of the acquiror in the transaction constituting a change in ownership or control of the Company, selected by the Company (the "Auditor"), and the Company will pay all costs and expenses of the Auditor. The Company will cooperate in good faith in making such determinations and in providing the necessary information for this purpose.

6. Restrictive Covenants.

6.1 Nondisclosure of Confidential Information; Inventions.

(a) The Company possesses valuable business and technical information, know-how and trade secrets (whether written or oral) related to its and its subsidiaries' current, future and proposed products, including, but not limited to, research, developments, improvements, methods, procedures, discoveries, patents, patent applications, inventions, processes, formulas, technology, designs, models, drawings, product plans, products, services, customers, customer lists, strategies, studies, business plans, forecasts, markets, techniques, engineering, testing systems, hardware configuration information, computer software and programs (including source code and related documentation), test and/or experimental data and results, laboratory notebooks, marketing, finances or other business information (herein collectively referred to as "Confidential Information"). Confidential Information shall include any and all information relating to the Company, and its subsidiaries, affiliates, clients, customers, investors, and joint venture and strategic partners.

(b) The Executive is an employee of the Company and as such the Company has and will disclose Confidential Information to the Executive. The Executive shall not communicate the Company's Confidential Information to any third party without the prior written consent of the Company, and the Executive shall use his best efforts to prevent inadvertent disclosure of the Company's Confidential Information to any third party. The Executive hereby acknowledges that he is aware that United States securities laws prohibits any person who has received from an issuer material, non-public information from purchasing or selling securities of such issuer or from communicating such information to any other person under circumstances in which it is reasonably foreseeable that such person is likely to purchase or sell such securities. The obligation of this Section 6.1(b) shall terminate with respect to any particular portion of the Company's Confidential Information when the Executive can document that the information is part of the public domain other than as a result of the Executive's or another person's breach of duty to maintain confidentiality.

(c) In the event that the Executive is requested or required (by oral question or request for information or documents and legal proceedings, interrogatories, subpoena, civil investigative demand or similar process) to disclose Confidential Information of the Company, or if the Executive is advised by his legal counsel that it is legally required to disclose the Confidential Information, it is agreed that the Executive (i) will provide the Company prompt notice of any request or requirement, (ii) will provide the Company full and complete cooperation to seek an appropriate order or remedy, (iii) will cooperate with the Company in obtaining reliable assurances that confidential treatment will be accorded to the disclosure of Confidential Information, and (iv) will, if disclosure of said Confidential Information is required, disclose only that portion of the Confidential Information which is legally required to be disclosed.

(d) The Executive will make full and prompt disclosure to the Company of all inventions, creations, improvements, discoveries, trade secrets, secret processes, technology, know-how, methods, developments, software, and works of authorship or other creative works, whether patentable or not, which are created, made, conceived or reduced to practice by him or under his direction or jointly with others during his employment by the Company, whether or not during normal working hours or on the premises of the Company (herein collectively referred to as "Developments").

(e) The Executive agrees to assign and does hereby assign to the Company (or any person or entity designated by the Company) all his right, title and interest in and to all Developments and all related patents, patent applications, copyrights and copyright applications. However, this Section 6.1(f) shall not apply to Developments that do not relate to the present or planned business or research and development of the Company and which are made and conceived by the Executive not during normal working hours, not on the Company premises and not using the Company's tools, devices, equipment or Confidential Information.

(f) The Executive agrees to cooperate fully with the Company and to take such further actions as may be necessary or desirable, both during and after his employment with the Company, with respect to the procurement, maintenance and enforcement of copyrights, patents and other intellectual property rights (both in the United States and foreign countries) relating to Developments. The Executive shall sign all papers, including, without limitation, copyright applications, patent applications, declarations, oaths, formal assignments, assignments of priority rights, and powers of attorney, which the Company may deem necessary or desirable in order to protect its rights and interests in any Development. The Executive further agrees that if the Company is unable, after reasonable effort, to secure the signature of the Executive on any such papers, any executive officer of the Company shall be entitled to execute any such papers as the agent and the attorney-in-fact of the Executive, and the Executive hereby irrevocably designates and appoints each executive officer of the Company as his/her agent and attorney-in-fact to execute any such papers on his/her behalf, and to take any and all actions as the Company may deem necessary or desirable in order to protect its rights and interests in any Development, under the conditions described in this sentence.

(g) Nothing herein shall be construed as giving the Executive any right in or to the Confidential Information or Developments or granting the Executive any license under any intellectual property rights.

6.2 Duty to Return Company Documents and Property. Upon the termination of Executive's employment with the Company for any reason, Executive shall immediately return and deliver to the Company any and all papers, books, records, documents, memoranda and manuals, e-mail, electronic or magnetic recordings or data, including all copies thereof, belonging to the Company or any of its subsidiaries or relating to the business of the Company or any of its subsidiaries, in Executive's possession, whether prepared by Executive or others. If at any time after the termination of employment, Executive determines that he has any trade secrets or other confidential information belonging to the Company or any of its subsidiaries in his possession or control, Executive shall immediately return to the Company all such trade secrets and other confidential information, including all copies and portions thereof.

6.3 Non-Solicitation. During the period of Executive's employment or other service with the Company and for **24** months thereafter, Executive shall not, without the prior written consent of the Company, directly or indirectly: (a) solicit, request, advise, entice, persuade, induce, offer to employ, or hire any employee, consultant, or independent contractor employed by or working on behalf of the Company or any of its subsidiaries at any time during the one-year period prior to the Executive's termination of employment with the Company to leave the Company or any of its subsidiaries or to engage in any activity which, were it done by the Executive, would violate the terms of this Agreement; (b) or solicit, request, advise, entice, persuade or induce any individual or entity, including but not limited to any customer, supplier, vendor, investor, equity or financing source, or other contracting party of the Company or any of its subsidiaries, to terminate, reduce or refrain from continuing or renewing their present or prospective contractual or business relationship with the Company or any of its subsidiaries. Upon request, Executive will execute a standard form of Company non-solicitation agreement, as in effect from time to time for executives generally, which shall apply in addition to and not in lieu of the covenants contained in this Agreement (it being understood that, in the event of any inconsistency, the provisions of this Agreement shall govern).

6.4 Non-Competition Restrictions. During the period of Executive's employment or other service with the Company and for **24** months thereafter, Executive shall not, directly or indirectly, without the prior written consent of the Company, engage in, become financially interested in, be employed by, render any consultation or business advice with respect to, or have any connection with, any business engaged in the research, development, testing, design, manufacture, sale, lease, marketing, utilization or exploitation of any products or services which are designed for the same purpose as, are similar to, or are otherwise competitive with, products or services of the Company or any of its subsidiaries, in any geographic area where, during the period of his employment with the Company or any subsidiary or at the time of the termination of his employment or other service with the Company and its subsidiaries, as the case may be, the business of the Company or any of its subsidiaries was being conducted or was proposed to be conducted in any manner whatsoever; provided, however, that Executive's mere purchase or holding, for investment purposes, of securities representing less than 5**%** of the outstanding value or voting interest of a publicly traded company shall not be deemed to be a violation of the provisions of this paragraph.

6.5 Reformation. Executive acknowledges that the Company and its subsidiaries conduct their business on a world-wide basis, that their sales and marketing prospects are for continued expansion into world markets and that, therefore, the territorial and time limitations set forth in Section 6.4 are reasonable and properly required for the adequate protection of the business of the Company and its subsidiaries. If a court concludes that any time period and/or the geographic area specified in Section 6.4 is unenforceable, then the time period will be reduced by the number of months, or the geographic area will be reduced by the elimination of the overbroad portion, or both, as the case may be, so that the restrictions may be enforced in the geographic area and for the time to the fullest extent permitted by law.

6.6 Remedies. It is intended that, in view of the nature of the Company's business, the restrictions contained in Sections 6.1 through 6.4 (including, without limitation, the restrictions that are specifically incorporated herein by reference), are considered reasonable and necessary to protect the Company's legitimate business interests and that any violation of these restrictions would result in irreparable injury to the Company. In the event of a breach or a threatened breach by Executive of any restrictive covenant contained herein, the Company shall be entitled to a temporary restraining order and injunctive relief restraining Executive from the commission of any breach, and to recover the Company's attorneys' fees, costs and expenses related to the breach or threatened breach. Nothing contained herein shall be construed as prohibiting the Company from pursuing any other remedies available to it for any breach or threatened breach, including, without limitation, the restoration and other remedies specified in this Agreement and/or the recovery of money damages, attorneys' fees, and costs. These covenants and restrictions shall each be construed as independent of any other provisions in the Agreement, and the existence of any claim or cause of action by Executive against the Company, whether predicated on this Agreement or otherwise, shall not constitute a defense to the enforcement by the Company of such covenants and restrictions.

6.7 Severability. Should a court determine that any paragraph or sentence, or any portion of a paragraph or sentence of this Section 6 is invalid, unenforceable, or void, this determination shall not have the effect of invalidating or validating the remainder of the paragraph, sentence or any other provision of this Section 6. Further, it is intended that the court should construe this Section 6 by limiting and reducing it only to the extent necessary to be enforceable under then applicable law.

7. Recoupment Upon Certain Restatement of Financial Statements. If the Company is required to restate all or a portion of its financial statement(s) for any period following the date of this agreement, and if the Board or the Compensation Committee determines that such restatement is attributable in whole or in significant part to fraud, negligence, or intentional misconduct on the part of Executive or known to Executive, then, subject to applicable law, the Board or the Compensation Committee, acting in its discretion, may require Executive to reimburse the Company for the amount of any incentive compensation paid to him, cause the cancellation of outstanding equity compensation awards, and seek reimbursement of any gains otherwise realized by him in respect of the exercise or settlement of any such awards if and to the extent that (a) the amount of such incentive compensation was or will be based upon the achievement of certain financial results that were subsequently reduced due to such restatement, and (b) the amount of the incentive compensation that was, would have been or would be paid or provided to Executive if the financial results had been properly reported would have been lower than the amount actually paid or provided.

8. Assignment. The services and duties to be performed by Executive hereunder are personal and may not be assigned. This Agreement shall be binding upon and inure to the benefit of the Company, its successors and assigns and Executive and his heirs and representatives. Company may assign this Agreement to a successor in interest, provided that any such assignee affirmatively adopts and agrees to fulfill all obligations to Executive hereunder.

9. Legal Fees to Enforce Rights after a Change in Control. If, following a Change in Control, the Company fails to comply with any of its obligations under this Agreement or the Company takes any action to declare this Agreement void or unenforceable or institutes any litigation or other legal action designed to deny, diminish or to recover from Executive (or Executive's beneficiary) the payments and benefits intended to be provided, then Executive (or Executive's beneficiary, as the case may be) shall be entitled to select and retain counsel at the expense of the Company to represent Executive (or Executive's beneficiary) in connection with the good faith initiation or defense of any litigation or other legal action, whether by or against the Company or any director, officer, stockholder or other person affiliated with the Company or any successor thereto in any jurisdiction.

10. No Impediment to Agreement. Executive covenants that, except as otherwise specifically disclosed herein, he is not, as of the date hereof, aware of any circumstance or condition (legal, health or otherwise), which, in any such case, would constitute an impediment to, or restriction upon, his ability to enter into this Agreement and to perform the duties and responsibilities of his employment hereunder.

11. Arbitration. Except as otherwise specifically provided herein (relating to the Company's right to obtain injunctive or other equitable relief from a court) or enforcement rights by Executive after a Change of Control, any claim or controversy arising out of or relating to this Agreement or the breach hereof shall be resolved exclusively by arbitration. Any such arbitration will be administered in accordance with the Employment Dispute Resolution Rules of the American Arbitration Association ("AAA"), in the metropolitan area of New York before an experienced employment law arbitrator licensed to practice law in that jurisdiction who has been selected in accordance with such Rules. Each party may be represented by counsel of its or his own choosing and at its or his own expense; provided, however, that attorneys' fees and costs may be awarded to a prevailing party in the discretion of the arbitrator. The arbitrator's award will be enforceable, and a judgment may be entered thereon, in a federal or state court of competent jurisdiction in the state where the arbitration was held. The decision of the arbitrator will be final and binding.

12. Governing Law. This Agreement shall be governed by the laws of the State of New York, excluding its conflict of law rules.

13. Indemnification; D&O Insurance. To the extent permitted by its Certificate of Incorporation and By-laws and subject to applicable law, the Company will indemnify, defend and hold Executive harmless from and against any claim, liability or expense (including reasonable attorneys' fees) made against or incurred by him as a result of his employment with the Company or any subsidiary or other affiliate of the Company, including service as an officer or director of the Company or any subsidiary or other affiliate of the Company. The Company shall cover Executive under directors and officers liability insurance both during and, while potential liability exists, after the Term, in the same amount and to the same extent as the Company covers its other officers and directors.

14. Withholding. All payments made by Company to or for the benefit of Executive in connection with his employment shall be subject to applicable tax withholding.

15. Severability. In the event that any provision or portion of this Agreement shall be determined to be invalid or unenforceable for any reason, in whole or in part, the remaining provisions of this Agreement shall be unaffected thereby and shall remain in full force and effect to the fullest extent permitted by law.

16. Section 409A.

16.1 Parties' Intent. The intent of the parties is that payments and benefits under this Agreement comply with Internal Revenue Code Section 409A and the regulations and guidance promulgated thereunder (collectively "Code Section 409A") and, accordingly, to the maximum extent permitted, this Agreement will be interpreted to be in compliance therewith. To the extent any of the payments or benefits required under this Agreement are, or in the opinion of counsel to the Company or Executive, could be interpreted in the future to create, a nonqualified deferred compensation plan that does not meet the requirements of Code Section 409A(a)(2), (3) and (4), the Company and Executive hereby agree to execute any and all amendments to this Agreement or otherwise reform this Agreement as deemed necessary by either of such counsel and reasonably acceptable to the other, and prepared by counsel to the Company, to either cause such payments or benefits not to be a nonqualified deferred compensation plan or to meet the requirement of Code Section 409A. In amending or reforming this Agreement for Code Section 409A purposes, the parties maintain, to the maximum extent practicable, the original intent and economic benefit of this Agreement without subjecting Executive to additional tax or interest; provided further, however, the Company will not be obligated to pay any additional material amount to Executive as a result of such amendment.

16.2 Delayed Distribution to Key Employees. If the Company determines in accordance with Code Sections 409A and 416(i), that Executive is a "Specified Employee" (within the meaning of Code Section 409A) of the Company on the date his employment with the Company terminates and, the parties agree that a delay in severance pay and benefits provided under this Agreement is necessary for compliance with Code Section 409A(a)(2)(B)(i), then any severance payments and any continuation of benefits or reimbursement of benefit costs provided under this Agreement, and not otherwise exempt from Code Section 409A (for example, pursuant to the "short-term deferral" or "separation pay" exemptions"), will be delayed until the earlier of (i) the first day of the seventh (7th) calendar month commencing after Executive's termination of employment, or (ii) Executive's death, consistent with and to the extent necessary to meet the requirements of Code Section 409A (the "409A Delay Period"). In such event, any such severance payments and the cost of any such continuation of benefits provided under this Agreement that would otherwise be due and payable to Executive during the 409A Delay Period will be paid to Executive in a lump sum cash amount at the end of the 409A Delay Period.

16.3 Separation from Service. A termination of employment will not be deemed to have occurred for purposes of any provision of this Agreement providing for the payment of any amounts or benefits following or upon a termination of employment (to the extent such payments or benefits are subject to Code Section 409A) unless such termination also constitutes a "Separation from Service" within the meaning of Code Section 409A and, for purposes of any such provision of this Agreement, references to a "termination," "termination of employment," "separation from service" or like terms mean Separation from Service.

16.4 Separate Payments. Each payment required under this Agreement will be considered a separate payment for purposes of determining the applicability of or exemption from Section 409A. Whenever a payment under this Agreement specifies a payment period with reference to a number of days, the actual date of payment within the specified period will be within the sole discretion of the Company.

16.5 Reimbursements. To the extent that reimbursements or other in-kind benefits under this Agreement constitute "nonqualified deferred compensation" for purposes of Code Section 409A, (i) all expenses or other reimbursements hereunder will be made no later than the time frame set forth in this Agreement, but in any event, on or prior to the last day of the taxable year following the taxable year in which such expenses were incurred by Executive, (ii) any right to reimbursement or in-kind benefits will not be subject to liquidation or exchange for another benefit, and (iii) no such reimbursement, expenses eligible for reimbursement, or in-kind benefits provided in any taxable year will in any way affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year.

17. Counterparts. This Agreement may be executed in separate counterparts, each of which will be an original and all of which taken together shall constitute one and the same agreement, and any party hereto may execute this Agreement by signing any such counterpart.

18. Amendment or Waiver. No provision of this Agreement may be modified, amended, waived or terminated except by an instrument in writing signed by the parties to this Agreement. No course of dealing between the parties will modify, amend, waive or terminate any provision of this Agreement or any rights or obligations of any party under or by reason of this Agreement. No delay on the part of the Company in exercising any right hereunder shall operate as a waiver of such right. No waiver, express or implied, by a party of any right or any breach by the other party shall constitute a waiver of any other right of such party or breach by such other party.

19. Notices. Any notice given to a party shall be in writing and shall be deemed to have been given when delivered personally or sent by certified or registered mail, postage prepaid, return receipt requested, or express mail to the recipient at his or its last known address.

20. Entire Agreement. This Agreement contains the entire understanding between the parties hereto with respect to the subject matter hereof and supersedes any prior and/or contemporaneous understandings, agreements or representations, written or oral, relating to the subject matter hereof and Executive's compensation for employment with the Company.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date first above written.

APPLIED DNA SCIENCES, INC.

By: /s/ Kurt H. Jensen

/s/ James A. Hayward

James A. Hayward

**EXHIBIT A**
**SECTION 1.3**
**PERMITTED ACTIVITIES**

This Exhibit A is attached to the Employment Agreement (the "Agreement") made as of July 11, 2011, by and between Applied DNA Sciences, Inc. ("Company") and James A. Hayward ("Executive"). Subject to Section 1.3 of the Agreement, Executive is permitted to continue to engage in any one or more of the outside business activities listed below.

**Boards:**

Not for profit

1) Stony Brook Foundation

2) Ward Melville Heritage Foundation

3) Gallery North Art League

Corporate

1) Softheon

2) Neogenix Corp.

3) Neomatrix Corp.

4) Evotope

**EXHIBIT B**
**FORM OF RELEASE**

In consideration of the premises and the payments and benefits to be made or provided by Applied DNA Sciences, Inc. (the Company") to James A. Hayward (the "Executive") under this Release and the provisions of Section 4 of the Employment Agreement between the parties to which this Exhibit is attached (the "Employment Agreement") relating to the termination of Executive's employment with the Company, the Executive, for the Executive and for the executors and administrators of the Executive's estate, and the Executive's heirs, successors and assigns, hereby releases and forever discharges the Company and its officers, directors, employees, agents and stockholders from any and all claims, actions, causes of action, suits, sums of money, debts, dues, accounts, reckonings, bonds, bills, covenants, contracts, controversies, agreements, promises, demands or damages of any nature whatsoever or by reason of any matter, cause or thing regardless of whether known or unknown at present, which against the Company or any of its officers, directors, employees, agents or stockholders Executive ever had, now has or may have arising out of or relating to any transaction, dealing, relationship, conduct, act or omission, or any other matters or things occurring or existing at any time prior to and including the date of this Release (collectively defined herein as "Claims"). This Release includes, but is not limited to, all Claims the Executive might have under Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. §§2000e, *et. seq.*; 42 U.S.C. §§1981, *et. seq.*; the Americans with Disabilities Act, 29 U.S.C. §§2000e, *et. seq.*; the Age Discrimination in Employment Act; the Older Workers Benefits Protection Act; the federal Family and Medical Leave Act; Section 451 *et. seq.*; similar Connecticut laws, the New York State Executive Law, and any and all statutory and common law causes of action for defamation; slander; *slander per se*; defamation *per se*; false light; tortious interference with prospective business relationships; assault; sexual assault; battery; sexual harassment; sexual discrimination; hostile work environment; discrimination; retaliation; workers' compensation retaliation; wrongful termination; intentional infliction of emotional distress; breach of a duty or obligation of any kind or description, including any implied covenant of good faith and fair dealing; and for breach of contract or any tort whatsoever, as well as any expenses or attorney's fees associated with such Claims. The parties acknowledge that this Release does not either affect the rights and responsibilities of the Equal Employment Opportunity Commission to enforce the Age Discrimination in Employment Act, or justify interfering with the protected right of an employee to file a charge or participate in an investigation or proceeding conducted by the Equal Employment Opportunity Commission under the Age Discrimination in Employment Act. In the event the Equal Employment Opportunity Commission commences a proceeding against the Company in which Executive is a named party, the Executive agrees to waive and forego any monetary claims which may be alleged by the Equal Employment Opportunity Commission to be owed to Executive. Notwithstanding the foregoing, nothing in the provisions of this Release shall act as a release by the Executive of any Claims against the Company with respect to (i) any amounts or benefits to which the Executive may become entitled to receive under the Employment Agreement after the date hereof, including the right to indemnity referenced therein, (ii) the Executive's rights under and in accordance with the terms of any employee benefit plan in which Executive participates, and (iii) any Claims arising with respect to acts, events or occurrences taking place after the date of this Release.

The Company has advised the Executive in writing to consult with an attorney prior to executing this Release. By executing this Release, the Executive acknowledges that (a) the Executive has been provided an opportunity to consult with an attorney or other advisor of the Executive's choice regarding the terms of this Release, (b) Executive has been given twenty-one (21) days (or, if required by applicable law, 45 days) in which to consider whether the Executive wishes to enter into this Release, (c) Executive has elected to enter into this Agreement knowingly and voluntarily, (d) Executive's waiver of rights or claims is in exchange for the good and valuable consideration herein; and (e) if Executive does so within fewer than twenty-one (21) days (or, if required by applicable law, 45 days) from receipt of this Release, Executive has knowingly and voluntarily waived the remaining time. This Release will become effective, enforceable and irrevocable on the eighth day after the date on which it is executed by the Executive (the "Effective Date"). During the seven-day period prior to the Effective Date, the Executive may revoke this Release by delivering a written notice of revocation to the Company.

**EXHIBIT 10.33**

**EMPLOYMENT AGREEMENT**

AGREEMENT made as of the 11th day of July, 2011, by and between APPLIED DNA SCIENCES, INC., a Delaware corporation (the "Company"), and KURT H. JENSEN ("Executive").

1 . Employment. Executive shall continue to be employed by the Company as a senior executive, which employment will be subject to and governed by this Agreement.

1.1 Duties and Responsibilities. Initially, Executive will continue to serve as the Company's Chief Financial Officer. Executive's position may be changed at any time by the Chief Executive Officer (the "CEO") of the Company or the Board of Directors of the Company to include or to consist solely of Chief Financial Officer, Executive Vice President or Chief Operating Officer of the Company. Executive will have such authority, duties and responsibilities as are customarily associated with his position(s) and as may be determined from time to time by the CEO, consistent with Executive's position(s), the Company's by-laws and applicable law. Executive will report directly to and be subject to the control and direction of the CEO. Executive will observe and adhere to all applicable written Company policies and procedures in effect from time to time, including, without limitation, policies on business ethics and conduct, and policies on the use of inside information and insider trading.

1.2 Term. Unless sooner terminated pursuant to Section 3, the term of this Agreement (the "Term") will begin July 1, 2011 and end June 30, 2014. Thereafter, the Term will automatically be renewed for successive one-year periods unless either party provides written notice of non-renewal to the other at least 90 days before the end of the then-current Term.

1.3 Full Time. Executive shall devote all of his business time and attention to the performance of his duties and responsibilities under this Agreement. Executive will not render services to others for compensation or, without the written consent of the Board (which should not be unreasonably withheld), serve on the board of directors or other governing body of another for profit entity. Executive may engage in personal, charitable and passive investment activities, so long as such activities do not conflict or interfere with his ability to perform the duties and responsibilities of his employment under this Agreement.

1.4 Location of Employment. Executive's principal place of employment will be at the Company's principal offices, currently located in Stony Brook, New York. The Company will not relocate the Executive's office beyond a 75 mile radius of the then current location without Executive's consent. Notwithstanding the foregoing, Executive acknowledges that he will have to engage in business travel in connection with the performance of his duties and in accordance with the needs of the Company.

2. Compensation.

2.1 Base Salary. The Company will pay base salary ("Base Salary") to Executive, in accordance with its regular payroll practices, at an initial annual rate of $225,000. The Board and/or the Compensation Committee of the Board (the "Compensation Committee") will review Executive's Base Salary annually. The Board or the Compensation Committee, acting in its discretion, may increase (but may not decrease) the annual rate of Executive's Base Salary. If, for any calendar quarter beginning after the date hereof, the Company has revenues in excess of $1 million, then, effective as of the first day of the next succeeding quarter, Executive's annual rate of Base Salary will be increased to $250,000.

2.2 Annual Bonus Opportunity. The Board or Compensation Committee may award an annual bonus to the Executive in such amount and upon such terms and conditions as the Board or the Compensation Committee, acting in its discretion, determines (provided that the Executive will not be treated less favorably with respect to annual bonuses than other similarly situated executives of the Company). The bonus for any fiscal year will be payable to the Executive as soon as practicable after the end of the year, but in no event later than the 15th day of the third calendar month following such fiscal year.

2.3 Initial Equity Awards. On the date of this Agreement, the Company has granted to Executive options to purchase 10 million shares of the Company's common stock, with an exercise price per share equal to the closing price per share on the date hereof, which options shall vest at the rate of 25% on the grant date and 37.5% on each of the next two anniversaries of the grant date, subject to Executive's continuous employment through the applicable vesting date, provided, however, that (a) no portion of the vested option will be exercisable prior to the execution of this Agreement by Executive, and (b) if the Company's revenues for any fiscal quarter beginning after the date hereof are at least $1 million more than the Company's revenues for the immediately preceding fiscal quarter, then vesting of the next 37.5% installment will accelerate (such that, if the $1 million increase is met in at least two quarters before the second anniversary of the option grant date, all of the options will have become fully vested as of the end of the second quarter for which the $1 million increase is met).

2.4 Annual Equity Awards. Executive will be eligible for additional equity awards under and in accordance with the Company's equity incentive plan as in effect from time to time.

2.5 Employee Benefits. Executive will be eligible to participate in such retirement, welfare and other employee benefit and fringe benefit plans, arrangements, programs and perquisites as are provided by the Company from time to time to or for the benefit of the Company's other executives, on comparable terms and conditions. Executive shall be entitled to five weeks of vacation time during each calendar year of his employment, subject to the Company's vacation policies and procedures. Executive will be entitled to carry over unused vacation for any year and will be entitled to payment for any accrued and unused vacation.

2.6 Reimbursement of Business Expenses. Executive is authorized to incur reasonable expenses in carrying out his duties and responsibilities of his employment under this Agreement, and the Company will promptly reimburse him for all expenses that are so incurred upon presentation of appropriate vouchers or receipts, subject to the Company's expense reimbursement policies applicable to senior executives generally as in effect from time to time. Executive will be entitled to first class travel on flights that are scheduled to exceed three hours. The Company will pay or reimburse Executive for the cost of computer, phone and other equipment and services reasonably required in order to enable Executive to conduct business from his home outside of regular business hours.

3. Termination of Employment Before End of Term.

3.1 Termination by Company for Cause. The Company may terminate Executive's employment before the end of the Term for Cause if Executive: (a) is convicted of or pleads nolo contendre to a felony, (b) commits fraud or a material act or omission involving dishonesty affecting the assets, business or reputation of the Company or any of its subsidiaries or affiliates, (c) willfully fails or refuses to carry out the material responsibilities of his employment, as reasonably determined by the Board, (d) engages in gross negligence, willful misconduct or a pattern of behavior that has had or is reasonably likely to have a significant adverse effect on the Company or the ability of Executive to perform the duties and responsibilities of his employment, or (e) willfully engages in any act or omission that is in material violation of Company policy, including, without limitation, Company policy on business ethics and conduct, and Company policy on the use of inside information and insider trading; provided, however, that, if the conduct giving rise to termination for Cause is curable without material harm to the business or assets of the Company, the Executive will be afforded an opportunity to effect such a cure within 30 days after notice of termination and thereby avoid a termination for Cause based upon such conduct.

3.2 Resignation by Executive. Executive may terminate his employment before the end of the Term, subject to at least 60 days' prior written notice to the Company. Upon receipt of such notice, the Company may relieve Executive of some or all of his duties and/or set an earlier termination date.

3.3 Termination by Company without Cause. Company may terminate Executive's employment without Cause before the end of the Term, subject to 60 days prior written notice to Executive. Following such notice, the Company may relieve Executive of some or all of his duties, provided that Company continues to pay Executive through the end of the notice period. For the purposes hereof, the termination of this Agreement at the expiration of the initial Term or the expiration of either of the first two renewal Terms (if any) due to non-renewal by Company pursuant to Section 1.2 will be deemed to be a termination of Executive's employment by Company without Cause.

3.4 Termination Due to Disability or Death. Company may terminate Executive's employment before the end of the Term due to "Disability" if Executive is unable to substantially perform the customary duties and responsibilities of his employment for at least 120 consecutive calendar days or 150 or more calendar days during any 365 calendar day period by reason of physical or mental illness, injury, impairment or incapacity. No minimum notice is required for a termination due to Executive's Disability. If Executive dies before the end of the Term, his employment will terminate on the date of his death.

3.5 Termination by Executive for Good Reason. Executive may terminate his employment for Good Reason at any time, subject to applicable notice and cure conditions described below. For this purpose, the term "Good Reason" means any of the following: (a) a material adverse change by Company of Executive's status or position(s) as in effect from time to time pursuant to Section 1.1, including, without limitation, a material diminution the duties, responsibilities or authority associated with such position(s), or the assignment to him of duties or responsibilities that are materially inconsistent with such position(s); (b) a reduction by the Company of Executive's annual Base Salary or failure to pay same ; (c) a breach by the Company of any of its material obligations under this Agreement; (d) relocation of Executive without Executive's consent beyond a 75 mile radius of Executive's then principal place of employment in violation of this Agreement; or (e) in connection with a Change in Control, the failure or refusal by the successor or acquiring company to expressly assume the obligations of Company under this Agreement. As a condition to terminating his employment for Good Reason, Executive must, within 60 days after the occurrence of the event or condition giving rise to such termination, provide written notice to the Company (or the successor or acquiring company) of his desire to terminate for Good Reason, specifying the nature of the act or omission that Executive deems to constitute Good Reason. The Company shall have 30 days after receipt of such notice to review and, if required, correct the situation (and thus prevent Executive's termination for Good Reason).

3.6 Definition of Change in Control. For the purposes hereof, a "Change in Control" will be deemed to have occurred if and when, after the date of this Agreement,

(a) any person, as such term is used in Section 13(d) and 14(d) of the Securities Exchange Act of 1934 (the "Exchange Act"), other than (1) the Company, (2) any trustee or other fiduciary holding securities under an employee benefit plan of the Company, (3) James A. Hayward, or (4) any entity owned, directly or indirectly, by the shareholders of the Company in substantially the same proportions as their ownership of stock of the Company, is or becomes the beneficial owner (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such person any securities acquired directly from the Company or its affiliates) representing 30 percent or more of the combined voting power of the Company's then outstanding voting securities;

(b) during any period of two consecutive years, individuals who at the beginning of such period constitute the Board and any new director (other than a director designated by a person who has entered into an agreement with the Company to effect a transaction described in clause (a), (c) or (d) of this subsection) whose election by the Board or nomination for election by the company's stockholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof;

(c) there is consummated a merger or consolidation of the Company or any direct or indirect subsidiary of the Company with any other entity, other than (1) a merger or consolidation which results in the directors of the Company immediately prior to such merger or consolidation continuing to constitute at least a majority of the board of directors of the Company, the surviving entity or any parent thereof or (2) a merger or consolidation effected to implement a recapitalization of the Company (or similar transaction) in which no person (other than persons described in any of parts (1) – (4) of subsection (a) above) is or becomes the beneficial owner, directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such person any securities acquired directly from the Company or its affiliates) representing 30% or more of the combined voting power of the Company's then outstanding securities; or

(d) the complete liquidation or dissolution of the Company or the sale or other disposition by the Company of all or substantially all of the Company's assets, other than a sale or disposition by the Company of all or a majority of the Company's assets, income or revenue to an entity, at least 70% of the combined voting power of the voting securities of which are owned by shareholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale.

4. Payments and Benefits Upon Termination of Employment.

4.1 Termination of Employment by Company without Cause or by Executive for Good Reason. Except as provided in Section 4.4 (relating to the effect of a Change in Control), if Executive's employment is terminated by Company without Cause pursuant to Section 3.3 or by Executive for Good Reason pursuant to Section 3.5, then, subject to Section 5, Executive shall receive the following payments and benefits:

(a) a single cash payment equal to the sum of (1) the unpaid amount, if any, of Base Salary previously earned by Executive through the date of his termination, and (2) the unpaid amount, if any, of the annual bonus earned by Executive for the preceding year;

(b) payment of any business and other expenses described in Sections 2.7 and 2.8 that were previously incurred but not reimbursed and are otherwise eligible for reimbursement;

(c) any payments or benefits payable to Executive or his covered spouse, or a dependent or beneficiary of Executive, under and in accordance with the provisions of any employee benefit plan;

(d) a cash payment equal to the product of (1) the greater of (A) the annual bonus award (if any) that would have been earned by Executive for the fiscal year in which his employment terminates if his employment had continued through the end of such year, and (B) the annual bonus earned by Executive for the preceding year, multiplied by (2) a fraction, the numerator of which is the number of days elapsed from the beginning of that fiscal year until the date his employment terminates, and the denominator of which is 365 ("Pro Rata Bonus"), which payment will be made when the bonus for such year would otherwise have been paid;

(e) an amount of severance equal to 1.5 times the sum of (1) Executive's annual rate of Base Salary in effect at the time his employment terminates, plus (2) the annual bonus, if any, earned by Executive for the year preceding the year of termination, or, if greater, the target bonus, if any, for the year of termination, which amount shall be payable ratably over a period of 18 months following such termination of employment as if it were salary payable in accordance with the Company's normal payroll practices, provided, however, that the initial installment will begin on the 60th day following the date on which Executive's employment terminates and will include the payments that would otherwise have been made during such 60-day period;

(f) any vested stock options and stock appreciation rights held by Executive at the time of his termination of employment will remain exercisable by the Executive or his beneficiary, as the case may be, for a period of at least three years following the termination of his employment (but in no event later than the stated expiration date of such option or stock appreciation right; and

(g) if the Executive and/or his covered spouse or dependents elect COBRA continuation coverage as a result of the termination of Executive's employment, then the Company will pay the full amount of the COBRA premium for such coverage for a period of up to 18 months following the termination of Executive's employment, it being understood that Executive may be taxable on the value of such coverage in order to enable the Company to avoid any penalty or additional tax that may otherwise be incurred by reason of the provision of such subsidized COBRA coverage.

4 . 2 Termination Due to Disability or Death. If Executive's employment is terminated pursuant to Section 3.4 by reason of his death or Disability, then, subject to Section 5, Executive (or, as applicable, his spouse, covered dependents and/or beneficiaries) shall receive the payments and benefits describe in Sections 4.1(a) – (d) and 4.1(g), and any vested stock options held by Executive at the time of his termination of employment will remain exercisable by the Executive or his beneficiary, as the case may be, for a period of at least three years following the termination of his employment (but in no event later than the stated expiration date of the option, as such date may be extended without causing the option to become subject to Section 409A of the Code).

4.3 Termination by Company for Cause or Resignation by Executive. If Company terminates Executive's employment for Cause pursuant to Section 3.1 or if Executive resigns his employment pursuant to Section 3.2 (other than a resignation for Good Reason pursuant to Section 3.5), Executive shall not be entitled to any payments or benefits except for those described in section 4.1 (a)-(c).

4.4 Effect of Change in Control.

(a) Vesting of Certain Equity Awards. If a Change in Control occurs, then immediately prior to such Change in Control, Executive will become fully vested in any then outstanding unvested stock options, restricted stock or other equity incentive awards for shares of Company stock, unless and except to the extent that they are assumed by or otherwise converted into economically equivalent stock options, restricted stock or other equity incentive awards with respect to shares of stock of the acquiring company, the surviving company or any of its or their affiliates.

(b) Termination of Employment in Connection with Change in Control. If Executive's employment is terminated by Company without Cause or by Executive for Good Reason within two years after a Change in Control or within 6 months prior to a Change in Control, then (1) the factor used for calculating the severance amount under Section 4.1(e) will be 2.0 (instead of 1.5); (2) the amount of severance payable to Executive pursuant to Section 4.1(e), as modified by (1) above (or, as the case may be, the amount remaining to be paid to Executive at the time of a Change in Control occurring within 6 months after the termination of Executive's employment, together with the increase resulting from the application of (1) above) will be payable to Executive in a single sum cash payment on the 60th day following his termination of employment (or, if Executive's employment terminated before the Change in Control, on the later of the date of the Change in Control or the date which is 60 days after the date Executive's employment terminated); and (3) any stock options and stock appreciation rights that are outstanding at the time of such termination of employment will remain exercisable for at least three years following the date on which the Change in Control occurs or, if later, the date Executive's employment terminates (but in no event later than the stated expiration date of such option or stock appreciation right).

5. Release of Claims; Restoration of Payments; Section 280G.

5.1 Release. Notwithstanding anything to the contrary contained herein, as conditions to the Company's being obligated to make the separation payments and provide the benefits described in Sections 4.1(d) – 4.1(g) (and, by extension, Section 4.2)), (a) within 60 days after the date of Executive's termination, the Company must have received from Executive an executed valid general release of claims substantially in the form attached hereto as Exhibit A, that is no longer subject to revocation, and (b) on or before Executive's termination date, the Executive shall have (1) turned over all Company property in his possession or control to the Company, and (2) resigned from the Board of the Company and the board of directors or comparable body of every subsidiary or other Affiliate of the Company, and every committee thereof. Executive shall not be entitled to receive such severance payment and benefits if the conditions described in the preceding sentence are not timely satisfied.

5.2 Restoration of Payments. Executive's right to receive any separation payments and benefits pursuant to this Agreement shall be subject to his compliance with the restrictive covenants referenced or set forth in Section 6 and repayment pursuant to this Section. If Executive violates or is in breach of any said restrictive covenants, then (a) Executive shall not be entitled to any further separation payments and benefits under this Agreement, (b) Executive shall be obligated to immediately return to the Company any separation payments and the value of any separation benefits previously received hereunder, and (c) Executive shall have no further rights or entitlements under this Agreement. This Section shall not in any manner supersede or limit any other right the Company may have to enforce or seek legal or equitable relief with respect to a violation or breach by Executive of any of said restrictive covenants.

5.3 Section 280G.

(a) General. If any payment or benefit received or to be received by Executive in connection with or contingent on a change in ownership or control of the Company, within the meaning of Section 280G of the Code, whether or not in connection with Executive's termination of employment, and whether or not pursuant to this Agreement (such payments or benefits being referred to as the "Total Payments") will be subject to an excise tax as provided for in Section 4999 of the Code (the "Excise Tax"), then Executive will be entitled to receive either (a) the full amount of the Total Payments, or (b) a portion of the Total Payments having a value equal to one dollar less than three times Executive's "base amount" (as such term is defined in Section 280G(b)(3)(A) of the Code), whichever of clauses (a) and (b), after taking into account applicable federal, state, and local income taxes and the Excise Tax, results in the receipt by Executive on an after-tax basis, of the greatest portion of the Total Payments. For purposes of determining the after-tax amounts in (a) and (b) above, Executive will be deemed to pay federal, state and local income tax at the highest marginal rates, net of the maximum reduction in federal income taxes which could be obtained from deduction of such state and local taxes. If there is a reduction of the Total Payments pursuant to the foregoing, then, unless the parties agree otherwise, such reduction will occur in the following order: (A) any cash severance payable under this Agreement; (B) any other cash amount payable to Executive; (C) any benefit valued as a "parachute payment;" and (D) acceleration of vesting of any equity awards.

(b) Determinations. All determinations under this subsection must be made by a nationally recognized accounting firm, which must not be the auditor of the acquiror in the transaction constituting a change in ownership or control of the Company, selected by the Company (the "Auditor"), and the Company will pay all costs and expenses of the Auditor. The Company will cooperate in good faith in making such determinations and in providing the necessary information for this purpose.

6. Restrictive Covenants.

6.1 Nondisclosure of Confidential Information; Inventions.

(a) The Company possesses valuable business and technical information, know-how and trade secrets (whether written or oral) related to its and its subsidiaries' current, future and proposed products, including, but not limited to, research, developments, improvements, methods, procedures, discoveries, patents, patent applications, inventions, processes, formulas, technology, designs, models, drawings, product plans, products, services, customers, customer lists, strategies, studies, business plans, forecasts, markets, techniques, engineering, testing systems, hardware configuration information, computer software and programs (including source code and related documentation), test and/or experimental data and results, laboratory notebooks, marketing, finances or other business information (herein collectively referred to as "Confidential Information"). Confidential Information shall include any and all information relating to the Company, and its subsidiaries, affiliates, clients, customers, investors, and joint venture and strategic partners.

(b) The Executive is an employee of the Company and as such the Company has and will disclose Confidential Information to the Executive. The Executive shall not communicate the Company's Confidential Information to any third party without the prior written consent of the Company, and the Executive shall use his best efforts to prevent inadvertent disclosure of the Company's Confidential Information to any third party. The Executive hereby acknowledges that he is aware that United States securities laws prohibits any person who has received from an issuer material, non-public information from purchasing or selling securities of such issuer or from communicating such information to any other person under circumstances in which it is reasonably foreseeable that such person is likely to purchase or sell such securities. The obligation of this Section 6.1(b) shall terminate with respect to any particular portion of the Company's Confidential Information when the Executive can document that the information is part of the public domain other than as a result of the Executive's or another person's breach of duty to maintain confidentiality.

(c) In the event that the Executive is requested or required (by oral question or request for information or documents and legal proceedings, interrogatories, subpoena, civil investigative demand or similar process) to disclose Confidential Information of the Company, or if the Executive is advised by his legal counsel that it is legally required to disclose the Confidential Information, it is agreed that the Executive (i) will provide the Company prompt notice of any request or requirement, (ii) will provide the Company full and complete cooperation to seek an appropriate order or remedy, (iii) will cooperate with the Company in obtaining reliable assurances that confidential treatment will be accorded to the disclosure of Confidential Information, and (iv) will, if disclosure of said Confidential Information is required, disclose only that portion of the Confidential Information which is legally required to be disclosed.

(d) The Executive will make full and prompt disclosure to the Company of all inventions, creations, improvements, discoveries, trade secrets, secret processes, technology, know-how, methods, developments, software, and works of authorship or other creative works, whether patentable or not, which are created, made, conceived or reduced to practice by him or under his direction or jointly with others during his employment by the Company, whether or not during normal working hours or on the premises of the Company (herein collectively referred to as "Developments").

(e) The Executive agrees to assign and does hereby assign to the Company (or any person or entity designated by the Company) all his right, title and interest in and to all Developments and all related patents, patent applications, copyrights and copyright applications. However, this Section 6.1(f) shall not apply to Developments that do not relate to the present or planned business or research and development of the Company and which are made and conceived by the Executive not during normal working hours, not on the Company premises and not using the Company's tools, devices, equipment or Confidential Information.

(f) The Executive agrees to cooperate fully with the Company and to take such further actions as may be necessary or desirable, both during and after his employment with the Company, with respect to the procurement, maintenance and enforcement of copyrights, patents and other intellectual property rights (both in the United States and foreign countries) relating to Developments. The Executive shall sign all papers, including, without limitation, copyright applications, patent applications, declarations, oaths, formal assignments, assignments of priority rights, and powers of attorney, which the Company may deem necessary or desirable in order to protect its rights and interests in any Development. The Executive further agrees that if the Company is unable, after reasonable effort, to secure the signature of the Executive on any such papers, any executive officer of the Company shall be entitled to execute any such papers as the agent and the attorney-in-fact of the Executive, and the Executive hereby irrevocably designates and appoints each executive officer of the Company as his/her agent and attorney-in-fact to execute any such papers on his/her behalf, and to take any and all actions as the Company may deem necessary or desirable in order to protect its rights and interests in any Development, under the conditions described in this sentence.

(g) Nothing herein shall be construed as giving the Executive any right in or to the Confidential Information or Developments or granting the Executive any license under any intellectual property rights.

6.2 Duty to Return Company Documents and Property. Upon the termination of Executive's employment with the Company for any reason, Executive shall immediately return and deliver to the Company any and all papers, books, records, documents, memoranda and manuals, e-mail, electronic or magnetic recordings or data, including all copies thereof, belonging to the Company or any of its subsidiaries or relating to the business of the Company or any of its subsidiaries, in Executive's possession, whether prepared by Executive or others. If at any time after the termination of employment, Executive determines that he has any trade secrets or other Confidential Information belonging to the Company or any of its subsidiaries in his possession or control, Executive shall immediately return to the Company all such trade secrets and other confidential information, including all copies and portions thereof.

6.3 Non-Solicitation. During the period of Executive's employment or other service with the Company and for **18** months thereafter, Executive shall not, without the prior written consent of the Company, directly or indirectly: (a) solicit, request, advise, entice, persuade, induce, offer to employ, or hire any employee, consultant, or independent contractor employed by or working on behalf of the Company or any of its subsidiaries at any time during the one-year period prior to the Executive's termination of employment with the Company to leave the Company or any of its subsidiaries or to engage in any activity which, were it done by the Executive, would violate the terms of this Agreement; (b) or solicit, request, advise, entice, persuade or induce any individual or entity, including but not limited to any customer, supplier, vendor, investor, equity or financing source, or other contracting party of the Company or any of its subsidiaries, to terminate, reduce or refrain from continuing or renewing their present or prospective contractual or business relationship with the Company or any of its subsidiaries. Upon request, Executive will execute a standard form of Company non-solicitation agreement, as in effect from time to time for executives generally, which shall apply in addition to and not in lieu of the covenants contained in this Agreement (it being understood that, in the event of any inconsistency, the provisions of this Agreement shall govern).

6.4 Non-Competition Restrictions. During the period of Executive's employment or other service with the Company and for **18** months thereafter, Executive shall not, directly or indirectly, without the prior written consent of the Company, engage in, become financially interested in, be employed by, render any consultation or business advice with respect to, or have any connection with, any business engaged in the research, development, testing, design, manufacture, sale, lease, marketing, utilization or exploitation of any products or services which are designed for the same purpose as, are similar to, or are otherwise competitive with, products or services of the Company or any of its subsidiaries, in any geographic area where, during the period of his employment with the Company or any subsidiary or at the time of the termination of his employment or other service with the Company and its subsidiaries, as the case may be, the business of the Company or any of its subsidiaries was being conducted or was proposed to be conducted in any manner whatsoever; provided, however, that Executive's mere purchase or holding, for investment purposes, of securities representing less than 5**%** of the outstanding value or voting interest of a publicly traded company shall not be deemed to be a violation of the provisions of this paragraph.

6.5 Reformation. Executive acknowledges that the Company and its subsidiaries conduct their business on a world-wide basis, that their sales and marketing prospects are for continued expansion into world markets and that, therefore, the territorial and time limitations set forth in Section 6.4 are reasonable and properly required for the adequate protection of the business of the Company and its subsidiaries. If a court concludes that any time period and/or the geographic area specified in Section 6.4 is unenforceable, then the time period will be reduced by the number of months, or the geographic area will be reduced by the elimination of the overbroad portion, or both, as the case may be, so that the restrictions may be enforced in the geographic area and for the time to the fullest extent permitted by law.

6.6 Remedies. It is intended that, in view of the nature of the Company's business, the restrictions contained in Sections 6.1 through 6.4 (including, without limitation, the restrictions that are specifically incorporated herein by reference), are considered reasonable and necessary to protect the Company's legitimate business interests and that any violation of these restrictions would result in irreparable injury to the Company. In the event of a breach or a threatened breach by Executive of any restrictive covenant contained herein, the Company shall be entitled to a temporary restraining order and injunctive relief restraining Executive from the commission of any breach, and to recover the Company's attorneys' fees, costs and expenses related to the breach or threatened breach. Nothing contained herein shall be construed as prohibiting the Company from pursuing any other remedies available to it for any breach or threatened breach, including, without limitation, the restoration and other remedies specified in this Agreement and/or the recovery of money damages, attorneys' fees, and costs. These covenants and restrictions shall each be construed as independent of any other provisions in the Agreement, and the existence of any claim or cause of action by Executive against the Company, whether predicated on this Agreement or otherwise, shall not constitute a defense to the enforcement by the Company of such covenants and restrictions.

6.7 Severability. Should a court determine that any paragraph or sentence, or any portion of a paragraph or sentence of this Section 6 is invalid, unenforceable, or void, this determination shall not have the effect of invalidating or validating the remainder of the paragraph, sentence or any other provision of this Section 6. Further, it is intended that the court should construe this Section 6 by limiting and reducing it only to the extent necessary to be enforceable under then applicable law.

7. Recoupment Upon Certain Restatement of Financial Statements. If the Company is required to restate all or a portion of its financial statement(s) for any period following the date of this agreement, and if the Board or the Compensation Committee determines that such restatement is attributable in whole or in significant part to fraud, negligence, or intentional misconduct on the part of Executive or known to Executive, then, subject to applicable law, the Board or the Compensation Committee, acting in its discretion, may require Executive to reimburse the Company for the amount of any incentive compensation paid to him, cause the cancellation of outstanding equity compensation awards, and seek reimbursement of any gains otherwise realized by him in respect of the exercise or settlement of any such awards if and to the extent that (a) the amount of such incentive compensation was or will be based upon the achievement of certain financial results that were subsequently reduced due to such restatement, and (b) the amount of the incentive compensation that was, would have been or would be paid or provided to Executive if the financial results had been properly reported would have been lower than the amount actually paid or provided.

8. Assignment. The services and duties to be performed by Executive hereunder are personal and may not be assigned. This Agreement shall be binding upon and inure to the benefit of the Company, its successors and assigns and Executive and his heirs and representatives. Company may assign this Agreement to a successor in interest, provided that any such assignee affirmatively adopts and agrees to fulfill all obligations to Executive hereunder.

9. Legal Fees to Enforce Rights after a Change in Control. If, following a Change in Control, the Company fails to comply with any of its obligations under this Agreement or the Company takes any action to declare this Agreement void or unenforceable or institutes any litigation or other legal action designed to deny, diminish or to recover from Executive (or Executive's beneficiary) the payments and benefits intended to be provided, then Executive (or Executive's beneficiary, as the case may be) shall be entitled to select and retain counsel at the expense of the Company to represent Executive (or Executive's beneficiary) in connection with the good faith initiation or defense of any litigation or other legal action, whether by or against the Company or any director, officer, stockholder or other person affiliated with the Company or any successor thereto in any jurisdiction.

10. No Impediment to Agreement. Executive covenants that, except as otherwise specifically disclosed herein, he is not, as of the date hereof, aware of any circumstance or condition (legal, health or otherwise), which, in any such case, would constitute an impediment to, or restriction upon, his ability to enter into this Agreement and to perform the duties and responsibilities of his employment hereunder.

11. Arbitration. Except as otherwise specifically provided herein (relating to the Company's right to obtain injunctive or other equitable relief from a court) or enforcement rights by Executive after a Change of Control, any claim or controversy arising out of or relating to this Agreement or the breach hereof shall be resolved exclusively by arbitration. Any such arbitration will be administered in accordance with the Employment Dispute Resolution Rules of the American Arbitration Association ("AAA"), in the metropolitan area of New York before an experienced employment law arbitrator licensed to practice law in that jurisdiction who has been selected in accordance with such Rules. Each party may be represented by counsel of its or his own choosing and at its or his own expense; provided, however, that attorneys' fees and costs may be awarded to a prevailing party in the discretion of the arbitrator. The arbitrator's award will be enforceable, and a judgment may be entered thereon, in a federal or state court of competent jurisdiction in the state where the arbitration was held. The decision of the arbitrator will be final and binding.

12. Governing Law. This Agreement shall be governed by the laws of the State of New York, excluding its conflict of law rules.

13. Indemnification; D&O Insurance. To the extent permitted by its Certificate of Incorporation and By-laws and subject to applicable law, the Company will indemnify, defend and hold Executive harmless from and against any claim, liability or expense (including reasonable attorneys' fees) made against or incurred by him as a result of his employment with the Company or any subsidiary or other affiliate of the Company, including service as an officer or director of the Company or any subsidiary or other affiliate of the Company. The Company shall cover Executive under directors and officers liability insurance both during and, while potential liability exists, after the Term, in the same amount and to the same extent as the Company covers its other officers and directors.

14. Withholding. All payments made by Company to or for the benefit of Executive in connection with his employment shall be subject to applicable tax withholding.

15. Severability. In the event that any provision or portion of this Agreement shall be determined to be invalid or unenforceable for any reason, in whole or in part, the remaining provisions of this Agreement shall be unaffected thereby and shall remain in full force and effect to the fullest extent permitted by law.

16. Section 409A.

16.1 Parties' Intent. The intent of the parties is that payments and benefits under this Agreement comply with Internal Revenue Code Section 409A and the regulations and guidance promulgated thereunder (collectively "Code Section 409A") and, accordingly, to the maximum extent permitted, this Agreement will be interpreted to be in compliance therewith. To the extent any of the payments or benefits required under this Agreement are, or in the opinion of counsel to the Company or Executive, could be interpreted in the future to create, a nonqualified deferred compensation plan that does not meet the requirements of Code Section 409A(a)(2), (3) and (4), the Company and Executive hereby agree to execute any and all amendments to this Agreement or otherwise reform this Agreement as deemed necessary by either of such counsel and reasonably acceptable to the other, and prepared by counsel to the Company, to either cause such payments or benefits not to be a nonqualified deferred compensation plan or to meet the requirement of Code Section 409A. In amending or reforming this Agreement for Code Section 409A purposes, the parties maintain, to the maximum extent practicable, the original intent and economic benefit of this Agreement without subjecting Executive to additional tax or interest; provided further, however, the Company will not be obligated to pay any additional material amount to Executive as a result of such amendment.

16.2 Delayed Distribution to Key Employees. If the Company determines in accordance with Code Sections 409A and 416(i), that Executive is a "Specified Employee" (within the meaning of Code Section 409A) of the Company on the date his employment with the Company terminates and, the parties agree that a delay in severance pay and benefits provided under this Agreement is necessary for compliance with Code Section 409A(a)(2)(B)(i), then any severance payments and any continuation of benefits or reimbursement of benefit costs provided under this Agreement, and not otherwise exempt from Code Section 409A (for example, pursuant to the "short-term deferral" or "separation pay" exemptions"), will be delayed until the earlier of (i) the first day of the seventh (7th) calendar month commencing after Executive's termination of employment, or (ii) Executive's death, consistent with and to the extent necessary to meet the requirements of Code Section 409A (the "409A Delay Period"). In such event, any such severance payments and the cost of any such continuation of benefits provided under this Agreement that would otherwise be due and payable to Executive during the 409A Delay Period will be paid to Executive in a lump sum cash amount at the end of the 409A Delay Period.

16.3 Separation from Service. A termination of employment will not be deemed to have occurred for purposes of any provision of this Agreement providing for the payment of any amounts or benefits following or upon a termination of employment (to the extent such payments or benefits are subject to Code Section 409A) unless such termination also constitutes a "Separation from Service" within the meaning of Code Section 409A and, for purposes of any such provision of this Agreement, references to a "termination," "termination of employment," "separation from service" or like terms mean Separation from Service.

16.4 Separate Payments. Each payment required under this Agreement will be considered a separate payment for purposes of determining the applicability of or exemption from Section 409A. Whenever a payment under this Agreement specifies a payment period with reference to a number of days, the actual date of payment within the specified period will be within the sole discretion of the Company.

16.5 Reimbursements. To the extent that reimbursements or other in-kind benefits under this Agreement constitute "nonqualified deferred compensation" for purposes of Code Section 409A, (i) all expenses or other reimbursements hereunder will be made no later than the time frame set forth in this Agreement, but in any event, on or prior to the last day of the taxable year following the taxable year in which such expenses were incurred by Executive, (ii) any right to reimbursement or in-kind benefits will not be subject to liquidation or exchange for another benefit, and (iii) no such reimbursement, expenses eligible for reimbursement, or in-kind benefits provided in any taxable year will in any way affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year.

17. Counterparts. This Agreement may be executed in separate counterparts, each of which will be an original and all of which taken together shall constitute one and the same agreement, and any party hereto may execute this Agreement by signing any such counterpart.

18. Amendment or Waiver. No provision of this Agreement may be modified, amended, waived or terminated except by an instrument in writing signed by the parties to this Agreement. No course of dealing between the parties will modify, amend, waive or terminate any provision of this Agreement or any rights or obligations of any party under or by reason of this Agreement. No delay on the part of the Company in exercising any right hereunder shall operate as a waiver of such right. No waiver, express or implied, by a party of any right or any breach by the other party shall constitute a waiver of any other right of such party or breach by such other party.

19. Notices. Any notice given to a party shall be in writing and shall be deemed to have been given when delivered personally or sent by certified or registered mail, postage prepaid, return receipt requested, or express mail to the recipient at his or its last known address.

20. Entire Agreement. This Agreement contains the entire understanding between the parties hereto with respect to the subject matter hereof and supersedes any prior and/or contemporaneous understandings, agreements or representations, written or oral, relating to the subject matter hereof and Executive's compensation for employment with the Company.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date first above written.

APPLIED DNA SCIENCES, INC.

By: /s/ James A. Hayward

/s/ Kurt H. Jensen

Kurt H. Jensen

**EXHIBIT A**
**FORM OF RELEASE**

In consideration of the premises and the payments and benefits to be made or provided by Applied DNA Sciences, Inc. (the Company") to Kurt H. Jensen (the "Executive") under this Release and the provisions of Section 4 of the Employment Agreement between the parties to which this Exhibit is attached (the "Employment Agreement") relating to the termination of Executive's employment with the Company, the Executive, for the Executive and for the executors and administrators of the Executive's estate, and the Executive's heirs, successors and assigns, hereby releases and forever discharges the Company and its officers, directors, employees, agents and stockholders from any and all claims, actions, causes of action, suits, sums of money, debts, dues, accounts, reckonings, bonds, bills, covenants, contracts, controversies, agreements, promises, demands or damages of any nature whatsoever or by reason of any matter, cause or thing regardless of whether known or unknown at present, which against the Company or any of its officers, directors, employees, agents or stockholders Executive ever had, now has or may have arising out of or relating to any transaction, dealing, relationship, conduct, act or omission, or any other matters or things occurring or existing at any time prior to and including the date of this Release (collectively defined herein as "Claims"). This Release includes, but is not limited to, all Claims the Executive might have under Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. §§2000e, *et. seq.*; 42 U.S.C. §§1981, *et. seq.*; the Americans with Disabilities Act, 29 U.S.C. §§2000e, *et. seq.*; the Age Discrimination in Employment Act; the Older Workers Benefits Protection Act; the federal Family and Medical Leave Act; Section 451 *et. seq.*; similar Connecticut laws, the New York State Executive Law, and any and all statutory and common law causes of action for defamation; slander; *slander per se*; defamation *per se*; false light; tortious interference with prospective business relationships; assault; sexual assault; battery; sexual harassment; sexual discrimination; hostile work environment; discrimination; retaliation; workers' compensation retaliation; wrongful termination; intentional infliction of emotional distress; breach of a duty or obligation of any kind or description, including any implied covenant of good faith and fair dealing; and for breach of contract or any tort whatsoever, as well as any expenses or attorney's fees associated with such Claims. The parties acknowledge that this Release does not either affect the rights and responsibilities of the Equal Employment Opportunity Commission to enforce the Age Discrimination in Employment Act, or justify interfering with the protected right of an employee to file a charge or participate in an investigation or proceeding conducted by the Equal Employment Opportunity Commission under the Age Discrimination in Employment Act. In the event the Equal Employment Opportunity Commission commences a proceeding against the Company in which Executive is a named party, the Executive agrees to waive and forego any monetary claims which may be alleged by the Equal Employment Opportunity Commission to be owed to Executive. Notwithstanding the foregoing, nothing in the provisions of this Release shall act as a release by the Executive of any Claims against the Company with respect to (i) any amounts or benefits to which the Executive may become entitled to receive under the Employment Agreement after the date hereof, including the right to indemnity referenced therein, (ii) the Executive's rights under and in accordance with the terms of any employee benefit plan in which Executive participates, and (iii) any Claims arising with respect to acts, events or occurrences taking place after the date of this Release.

The Company has advised the Executive in writing to consult with an attorney prior to executing this Release. By executing this Release, the Executive acknowledges that (a) the Executive has been provided an opportunity to consult with an attorney or other advisor of the Executive's choice regarding the terms of this Release, (b) Executive has been given twenty-one (21) days (or, if required by applicable law, 45 days) in which to consider whether the Executive wishes to enter into this Release, (c) Executive has elected to enter into this Agreement knowingly and voluntarily, (d) Executive's waiver of rights or claims is in exchange for the good and valuable consideration herein; and (e) if Executive does so within fewer than twenty-one (21) days (or, if required by applicable law, 45 days) from receipt of this Release, Executive has knowingly and voluntarily waived the remaining time. This Release will become effective, enforceable and irrevocable on the eighth day after the date on which it is executed by the Executive (the "Effective Date"). During the seven-day period prior to the Effective Date, the Executive may revoke this Release by delivering a written notice of revocation to the Company.

**Exhibit 23.1**

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 (File No. 333-163478) of Applied DNA Sciences, Inc. of our report dated December 8, 2011, relating to the consolidated financial statements, which appears in this annual report on Form 10-K.

/s/ RBSM LLP

New York, New York

December 8, 2011

**Exhibit 31.1**

**CERTIFICATION**

I, James A. Hayward, certify that:

1. I have reviewed this Annual Report on Form 10-K of Applied DNA Sciences, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant`s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financing reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: December 8, 2011

/s/ JAMES A. HAYWARD
James A. Hayward
*President, Chief Executive Officer and Chairman*

**Exhibit 31.2**

**CERTIFICATION**

I, Kurt H. Jensen, certify that:

1. I have reviewed this Annual Report on Form 10-K of Applied DNA Sciences, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant`s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financing reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: December 8, 2011

/s/ Kurt H. Jensen
Kurt H. Jensen
*Chief Financial Officer*

**Exhibit 32.1**

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

In connection with the Annual Report on Form 10-K of Applied DNA Sciences, Inc. (the "Company") for the fiscal year ended September 30, 2011, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, James A. Hayward, President, Chief Executive Officer and Chairman of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ JAMES A. HAYWARD
James A. Hayward
*President, Chief Executive Officer and Chairman*

Date: December 8, 2011

* A signed original of this written statement required by Section 906 has been provided to Applied DNA Sciences, Inc. and will be retained by Applied DNA Sciences, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

**Exhibit 32.2**

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

In connection with the Annual Report on Form 10-K of Applied DNA Sciences, Inc. (the "Company") for the fiscal year ended September 30, 2011, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Kurt H. Jensen, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ KURT H. JENSEN
Kurt H. Jensen
*Chief Financial Officer*

Date: December 8, 2011

* A signed original of this written statement required by Section 906 has been provided to Applied DNA Sciences, Inc. and will be retained by Applied DNA Sciences, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.