APPLIED DNA SCIENCES INC
Form 10-K
December 28, 2017

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended September 30, 2017

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

For the transition period from _____ to _____

Commission File Number **001-36745**

APPLIED DNA SCIENCES, INC.

(Exact name of registrant as specified in its charter)

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

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

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

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

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

¨ Yes x No

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

¨ Yes x No

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

x Yes ¨ No

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

x Yes ¨ No

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

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

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

Emerging growth company ¨

If an emerging growth company, indicate by a check mark if the registrant has elected to not use the extended transition period of complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ¨

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

The aggregate market value of the Registrant's voting and non-voting common stock held by non-affiliates of the Registrant, based upon the last sale price of the common stock reported on The Nasdaq Capital Market as of the last business day of the Registrant's most recently completed second fiscal quarter (March 31, 2017), was approximately $38 million. Shares of the Registrant's common stock held by each executive officer and director and by each entity or person that, to the Registrant's knowledge, owned 5% or more of the Registrant's outstanding common stock as of March 31, 2017 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 22, 2017, the Registrant had outstanding 30,112,057 shares of common stock, par value $0.001 per share.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive Proxy Statement for the 2018 Annual Meeting of Shareholders, to be filed within 120 days after the end of the fiscal year ended September 30, 2017 and incorporated by reference in Part III hereof. Except with respect to information specifically incorporated by reference in the Annual Report on Form 10-K, the Proxy Statement is not deemed to be filed as part hereof.

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PART I

Forward-looking Information

This Annual Report on Form 10-K (including but not limited to Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations") contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that are intended to qualify for the "safe harbor" created by those sections. In addition, we may make forward-looking statements in other documents filed with or furnished to the Securities and Exchange Commission ("SEC"), and our management and representatives may make forward-looking statements orally or in writing to analysts, investors, representatives of the media and others. Forward-looking statements can generally be identified by the fact that they do not relate strictly to historical or current facts and include, but are not limited to, statements using terminology such as "can", "may", "could", "should", "assume", "forecasts", "believe", "designated to", "will "plan", "anticipate", "estimate", "potential", "position", "predicts", "strategy", "guidance", "intend", "seek", "budget", "projec the negative thereof or other comparable terminology regarding beliefs, plans, expectations or intentions regarding the future. You should read statements that contain these words carefully because they:

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

We believe it is important to communicate our expectations. However, forward-looking statements are based on our current expectations, assumptions, estimates and projections about our business and our industry and are subject to known and unknown risks, uncertainties and other factors. Accordingly, our actual results and the timing of certain events may differ materially from those expressed or implied in such forward-looking statements due to a variety of factors and risks, including, but not limited to, those set forth under Item 1, "Business," Item 1A, "Risk Factors," Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," and our consolidated financial statements and notes thereto included in this report, those set forth from time to time in our other filings with the SEC, and the following factors and risks:

- our lack of significant revenues;
- our history of net losses, which may continue, and our potential inability to achieve profitability;

- the possibility that we may require additional financing, which may involve the issuance of additional shares of common stock or securities exercisable or convertible into common stock and dilute the percentage of ownership held by our current stockholders;
- difficulty in obtaining or inability to obtain, additional financing if such financing becomes necessary;
- volatility in the price and/or trading volume of our common stock;
- future short selling and/or manipulation of the price of our common stock;
- our inability to implement our short and long-term strategies;
- competition from products and services provided by other companies;
- potential difficulties and failures in manufacturing our products;
- loss of strategic relationships;
- dependence on a limited number of key customers;
- lack of acceptance of our products and services by potential customers;
- potential failure to introduce new products and services;
- difficulty or failure in expanding/and or maintaining our sales, marketing and support organizations and our distribution arrangements necessary to enable us to reach our goals with respect to increasing market acceptance of our products and services;
- seasonality in revenues related to our cotton customer contracts

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- inability to continue to retain the services of Dr. Hayward, our Chief Executive Officer;
- inability to compete effectively in the industries in which we operate;
- lack of success in our research and development efforts for new products;
- failure to manage our growth in operations and acquisitions of new technologies and businesses;
- inability to protect our intellectual property rights;
- intellectual property litigation against us or other legal actions or proceedings in which we may become involved;
- unauthorized disclosure of sensitive or confidential data (including customer data) and cybersecurity breaches; and
- adverse changes in worldwide or domestic economic, political or business conditions.

All forward-looking statements and risk factors included in this Annual Report on Form 10-K are made as of the date hereof, based on information available to us as of such date, and we assume no obligations to update any forward-looking statement or risk factor, unless we are required to do so by law. If we do update one or more forward-looking statements, no inference should be drawn that we will make updates with respect to other forward-looking statements or that we will make any further updates to those forward-looking statements at any future time.

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

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

contained herein.

Our trademarks in the United States include Applied DNA Sciences®, SigNature® molecular tags, SigNature® T molecular tags, fiberTyping®, DNAnet®, digitalDNA®, SigNify®, BackTrac®, Beacon® and CertainT® All trademarks, service marks and trade names included or incorporated by reference in this Annual Report on Form 10-K are the property of their respective owners, including, without limitation, the PimaCott®, HomeGrown® LoneStar™ and HomeGrown Acala™ marks owned by Himatsingka America, Inc. and/or its affiliates.

ITEM 1. BUSINESS.
Overview

Overview

Using biotechnology as a forensic foundation, we create unique security solutions addressing the challenges of modern commerce. Whether for supply chain security, brand protection or law enforcement applications, it is our goal to help establish secure flourishing environments that foster quality, integrity and success. With secure taggants, high-resolution DNA authentication, and comprehensive reporting, our SigNature molecular tag technologies are designed to deliver what we believe to be the greatest levels of security, deterrence and legal recourse strength. We are also engaged in the large-scale production of specific DNA sequences using the polymerase chain reaction ("PCR") method.

SigNature molecular tags, the core of our technology platform, are what we believe to be nature's ultimate means of authentication and supply chain security. Our precision-engineered molecular tags have not and, we believe, cannot be broken. Additional layers of protection and complexity are added to the mark in a proprietary manner. SigNature molecular tags in various carriers have proven highly resistant to UV radiation, heat, cold, vibration, abrasion and other extreme environments and conditions. We work closely with our customers to develop solutions that will be optimized to their specifications to deliver maximum impact. Our products and technology are protected by what we believe to be a robust portfolio of patents and trademarks.

Using our products and technology, manufacturers, brands, and other stakeholders can ensure authenticity and protect against diversion throughout a product's journey from manufacturer to use.

The core technologies of our business allow us to use molecular tags 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 molecular tag. We believe that our disruptive platform offers broad commercial relevance across many industry verticals. Our underlying strategy is to become a solutions provider for supply chains of process industries in which contracts for our products and services are larger and of longer duration as compared to our historic norms, where the benefits to customers and consumers are more significant, and where our forensic security and traceability offer a unique and protected value. Consumers, governments and companies are demanding details about the systems and sources that deliver their goods. They worry about quality, safety, ethics, and the environmental impact. Farsighted organizations are directly addressing new threats and opportunities presented by this question: Where do these goods come from? These are the questions and concerns we are beginning to address for a growing number of companies. We supply key building blocks for creating secure supply chains with traceability of goods, which in turn can help ensure integrity in supply, honest sales and marketing claims, and ethical and sustainable sourcing.

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 the State of Nevada, and in 2002, we changed our name to our current name, Applied DNA Sciences, Inc. In December 2008, we reincorporated from Nevada to the State of Delaware.

Our corporate headquarters are located at the Long Island High Technology Incubator at Stony Brook University in Stony Brook, New York, where we established laboratories for the manufacture of molecular tags, product prototyping, molecular tag authentication and bulk DNA production. The address of our corporate headquarters is 50 Health Sciences Drive, Stony Brook, New York 11790, and our telephone number is (631) 240-8800. We maintain a website at *www.adnas.com* where general information about us is available. The information on, or that may be accessed through, our website is not incorporated by reference into and should not be considered a part of this report.

Industry Background

Supply chain security

Supply chains are the systems used by companies to obtain products and services for resale, their own consumption or as a component in a product or service that they then resell. Supply chains often include the sourcing of raw materials, their processing in various stages to create products, and transportation and logistics to move goods both within the supply chain process and to the final consumer. Many different companies may be part of a supply chain, and often the owner of the supply chain has limited ability to oversee and supervise all components of its supply chain. Supply chain security refers to efforts to enhance the security of the supply chain. It combines traditional practices of supply chain management with the security requirements driven by threats such as terrorism, piracy and theft. We focus on one particular part of supply chain security, the substitution of specified inputs with something else, often a cheaper, inferior input. For example, a company might specify that sheets be made of high quality pima cotton but the company that wove the material for the sheets substituted cheaper and inferior upland cotton. We call a supply chain with such security problems a leaky supply chain. Leaky supply chains create significant and growing problems to companies in a wide range of industries as well as governments and individuals worldwide. Large retailers assemble sprawling networks of suppliers in developing countries to produce their goods at cheaper cost, underscoring the difficulties of policing a global supply chain. This is a global problem that only appears to be increasing. Leaky supply chains allow materials to become diluted, diverted or counterfeited, devaluing corporate reputations, potentially causing health and safety concerns, and hindering investment, and may cost hundreds of thousands of people their livelihood every year. In addition, a company with a leaky supply chain has essentially been cheated, since they paid a premium price for an inferior substitution.

As more and more companies begin to address the problem of supply chain security, we expect that different systems will compete to be the leading standards by which products can be tracked across world markets. To ensure only genuine products are entering the marketplace requires cutting edge technology. Historically, leaky supply chains and other types of fraud have been combated by embedding various authentication systems and rare and easily distinguishable materials into products; technologies such as radio frequency identification ("RFID") devices, holograms or integrated circuit chips onto packaging; magnetic strips in automatic teller machine cards; banknote threads on currency; elemental taggants in explosives; and radioactivity and rare molecules in crude oil. We believe these techniques are effective but have generally been reverse-engineered and replicated which limit their usefulness as forensic methods for authentication of the sources of products and other items.

Brand Protection

Establishing a strong brand is pivotal to business success, as it is how a company is perceived by the customer. We believe that protecting that brand is as important. Counterfeiting affects brands across the globe and effective brand protection strategy has become imperative for companies. Many customers do not even realize that they have a counterfeit product, attributing the poor quality to the brand thus tarnishing its name. A recent Organization for Economic Co-operation and Development (OECD) report (April 18, 2016) reiterates a number of trends that have been evident for more than a decade – virtually all brands are being counterfeited, and counterfeit and pirated products are originating from virtually all economies on all continents. Counterfeiters are improving their logistics networks, manipulating transit routes, exploiting governance gaps and taking advantage of the huge growth in online shopping, thereby underlining the need for secure supply chains to protect brands. Consumer safety and satisfaction, brand reputation and revenues can be adversely impacted by counterfeiting. Our SigNature molecular tags can be applied to many products, affording quick and definitive identification of authentic products, and aiding in brand protection efforts.

Law Enforcement Applications

Burglaries, car theft, cash-in-transit robberies are worldwide problems begging for a solution. The United States leads the world in the occurrence of home burglaries, with a burglary occurring about every 18 seconds in the U.S. (The SafeWise Report - September 13, 2016). Interpol reported that for the year ending December 31, 2015, they had received 7.4 million records of reported stolen motor vehicles from 126 different countries (Interpol — Database Statistics). According to the FBI, a motor vehicle was stolen in the United States every 46 seconds in 2014 and the value of the stolen motor vehicles was more than $4.5 billion. According to Plastics Today, automotive aftermarket parts are a huge business for counterfeiters, resulting in $9 billion annually in vehicle recalls. (Plastics Today, "Material taggants provide protection from counterfeiting of plastic products" (September 21, 2015)). These crimes have wide-ranging impacts, affecting law enforcement agencies, insurance companies, legislative bodies, and justice departments.

Asset identification, management, protection and authentication solutions that deliver value to the customer are critical components of any successful theft deterrent program. In addition to tagging assets with a unique mark to prevent theft and facilitate return of stolen goods, it is imperative that would-be thieves know that the items are marked and that law enforcement is trained to properly identify recovered property. Forensic marking of home assets, including automobiles, uses technology to code valuables at risk of theft to identify burglars, linking them directly with a crime scene. Over the years, authorities have found it difficult to obtain convictions of thieves in possession of suspected stolen property unless the true owner can be identified.

Products and Services

SigNature® molecular tags, SigNature® T molecular tags, fiberTyping®, DNAnet®, digitalDNA®, SigNify® BackTrac®, Beacon® and CertainT® comprise our principal technology platform. The large-scale production of specific DNA sequences is used in the diagnostics and reagent industries.

Signature Molecular Tags

SigNature Molecular Tags. The SigNature molecular tag is our patented molecular taggant technology, at the core of our platform. It provides forensic power and protection for a wide array of applications. Highly secure, robust and durable, SigNature molecular tags are an ingredient that can be used to fortify brand protection efforts; strengthen supply chain security; and mark, track and convict criminals. Through our SigNature molecular tags, custom DNA sequences can be embedded into a wide range of host carriers including ink, varnish, thread and metal coatings. SigNature molecular tags can be made resistant to challenging environments such as heat, cold, vibration, abrasion, organic solvents, chemicals, UV radiation and other extreme environmental conditions, and so can be identified for numerous years after being embedded directly, or into media applied or attached to the item to be marked. Each individual molecular tag is recorded and stored in a secure database so that we can later detect it using a simple spot test, or the molecular tags can be forensically analyzed in our laboratories to obtain definitive proof of the presence or absence of a specific SigNature molecular tag (e.g., one designed to mark a particular product). Our in-lab forensic testing capability delivers an expert witness Certificate of DNA Authentication (“CODA”). Because DNA is one of the densest information carriers known, and can be amplified with high fidelity, only minute quantities of SigNature molecular tags are necessary for successful analysis and authentication. As a result, SigNature molecular tags can fold seamlessly into production and logistics workflows at extremely low concentrations.

SigNature molecular tags have been subjected to rigorous testing by the Idaho National Laboratory, a U.S. National Laboratory, by CALCE (the Center for Advanced Life Cycle Engineering), the largest electronic products and systems research center focused on electronics reliability, and by verified procedures in our laboratories. The molecular tag has passed all tests across a broad spectrum of materials and substrates, and has met key military stability standards. SigNature molecular tags have also passed a strenuous “red-team” vetting on behalf of the U.S. Defense Logistics

Agency.

Hundreds of millions of SigNature molecular tags now exist on items ranging from consumer product packaging to microcircuits to cotton and synthetic fibers; to our knowledge, none has ever been copied.

SigNature T Molecular Tags and fiberTyping

SigNature T Molecular Tags. SigNature T molecular tags are a unique patented tagging and authentication system specifically designed for textiles and apparel. Specially engineered to adhere tenaciously to textile substrates, including natural and synthetic fibers, SigNature T molecular tags are resistant to standard textile production conditions, and cannot be copied. The result: an enduring forensic level molecular tag that remains present from the fiber stage through to the finished product.

Our SigNature T technology allows for better quality control and assurance at any point in the supply chain. SigNature T molecular tags are currently used for brand protection efforts and raw material source compliance programs. For example, American grown cotton fibers can be tagged at the gin in the United States, verified as “American grown” and then traced through every step of the supply chain.

fiberTyping. Our patented cotton genotyping platform, known as “fiberTyping,” described below, complements our SigNature T molecular tag system. fiberTyping is employed to identify the genus and species of the fibers before or after they are tagged with SigNature T molecular tags. fiberTyping cannot be used to provide unique identity or traceability of a specific cotton batch through the supply chain, a function which can only be accomplished by our SigNature T molecular tag system combined with our digital software platform.

fiberTyping is not a molecular tag, but a genotyping test of native cotton fiber DNA, which gives a clear result that determines whether the intended “nature-made” endogenous cotton DNA is present in fiber, yarn or fabric. Samples from the primary material are sent to our forensic labs for DNA analysis and authentication. Cotton classification and the authentication of cotton species after cotton has left its place of origin are issues of global significance, important to brand owners and to governments that must regulate the international cotton trade. The use of endogenous DNA to identify the cotton fiber content of finished textiles, along with the SigNature T molecular tag system is a significant opportunity for brand license holders to control their intellectual property, for brands to shield themselves against legal liabilities, and for governments to improve their ability to enforce compliance with trade agreements between nations.

In addition to the global cotton trade, the potential markets for genotyping include biotherapeutics, nutraceuticals, natural foods, wines and fermented alcohols and other natural textiles.

We believe that our proprietary DNA extraction protocols and methodologies are more effective than existing forensic systems. We believe that the combination of our SigNatureT molecular tags and fiberTyping solutions cover the forensic authentication market for textiles and that the related protocols we have developed may be applicable to multiple industry verticals, and can mark and authenticate products at every stage of their life cycle, from beginning to end.

DNAnet, Smart DNA and Backtrac

Recognizing that DNA-based evidence is the cornerstone of modern-era law enforcement, we have developed what we believe to be the ultimate crime fighting tools – currently being used in home asset and vehicle marking, as well as commercial applications.

These molecular tags can be used to definitively link evidence and offenders to specific crime scenes. As the crime is investigated, the fluorescing molecular marker can assist police in linking the offender and stolen items to a specific crime scene, creating a greater ability to identify and convict.

These long lasting tagging solutions contain unique molecular tags that can help return stolen or lost property to its rightful owner.

Beacon

Beacon locked optical markers deliver secure real-time inspection capabilities. A unique encrypted mechanism (patent-pending) creates a protected, covert screening tool that can be easily adapted to packaging, security labels and high–value assets through inks, varnishes and coatings. When Beacon locked optical markers are combined with SigNature molecular tags, a strong and flexible end-to-end security solution is created where authenticity and provenance can be determined with confidence.

SigNify

Developing a secure method for real-time, in-field screening of molecularly-tagged items has long been a priority for us. We believe that standard fluorophores, up-converting phosphors, holograms and other more-traditional screening tools provide little to no defense against counterfeiting. We believe that secure in-field inspection backed with forensic-level molecular tag authentication is the key to maintaining a well-defended supply chain or asset management program.

The SigNify IF portable DNA reader provides definitive real-time authentication of SigNature and SigNature T molecular tags in the field. With SigNify IF, Signature molecular tags become a true, front-line solution for supply chain integrity.

Information Technology Systems

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

DNA Transfer Systems. Our DNA Transfer Systems are developed for DNA marking applications which are high volume with a need for monitoring and control. They are computer based, fully automated, offer remote internet access for real-time monitoring and can be configured for application-specific alerts and reporting online. They were used to mark cotton at eight U.S. cotton gins in the 2016 ginning season.

CertainT Supply Chain Platform

CertainT helps brands confirm their product's authenticity and origin with certified, trust, transparency and traceability through the seamless amalgamation of several of our platform technologies to tag, test and track. The CertainT trademark indicates use of the CertainT tagging, testing and tracking platform to enable proof of product claims for any material, item or product. Secure and proven, the CertainT Platform helps manufacturers, brands or other commercial organizations deliver on their promise that customers are buying products that are ethically-sourced, safe and authentic.

Large-scale production of specific DNA sequences using PCR.

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

Our Strategy

The core technologies of our business allow us to use molecular tags to tag objects in a unique manner that we believe cannot be replicated, and then identify these objects by detecting the absence or presence of the molecular tag. We believe our disruptive platform offers broad commercial relevance across many industry verticals. Our underlying strategy is to become a solutions provider for supply chains of process industries in which contracts for our products and services are larger and of longer duration as compared to our historic norms, where the benefits to customers and consumers are more significant, and where our forensic security and traceability offers a unique and protected value. Consumers, governments and companies are demanding details about the systems and sources that deliver their goods. They worry about quality, safety, ethics, and the environmental impact. Farsighted organizations are directly addressing new threats and opportunities presented by this question: Where do these goods come from? These are the questions and concerns we are beginning to address for a growing number of companies. We supply key building blocks for creating secure supply chains, which in turn can help ensure integrity in supply, honest sales and marketing claims, and ethical and sustainable sourcing.

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Our products and services are offered in the United States, Europe and Asia. At the present time, we are focusing our efforts on textile and apparel, microcircuits and other electronics, pharmaceuticals, bulk DNA production (for therapeutics, diagnostics and vaccines), cash-in-transit, consumer asset marking, printing and packaging businesses, agrochemicals. In the future, we plan to expand our focus to include additional consumer products, food and beverage and industrial materials. To date, the substantial portion of our revenues has been generated from sales of our SigNature and SigNature T molecular tags, our principal supply chain security and product authentication solutions. We expect to continue to grow revenues from sales of our SigNature molecular tags, SigNature T molecular tags, DNAnet, BackTrac, digitalDNA, Beacon, SigNify and CertainT offerings as we work with companies and governments to secure supply chains and restore confidence to products and product labeling throughout the world. In addition, we expect to continue to grow revenues from the large-scale production of specific DNA sequences using our Triathlon™ PCR systems which have multiple applications including as a diagnostic and reagent and for gene therapy, DNA vaccines and diagnostics. We also expect to see new revenue in the pharmaceutical market.

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 leaky supply chains, product diversion and a lack of security. We also 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.

Present Markets:

Textiles and Apparel

Cotton identity and the authentication of cotton geographic origin are issues of global significance, important to brand owners for quality assurance and compliance, and to governments that must regulate international cotton trade, enforcement of textile labeling, and protect consumers. We believe that our SigNature T molecular tag technology,

fiberTyping and digitalDNA solutions could have significant potential applications for the enforcement of cotton trade quotas in the U.S. and across the globe, and for legislated quality improvement within the industry. We believe that our products and technology can also be helpful in assuring quality, traceability and economic investment of cotton and other textiles. We believe that similar issues face other natural fibers like wool, cashmere and leather, as well as man-made fiber, recycled polyester, viscose and other synthetic products for which we have begun to introduce our textile solutions as well.

Our Market Response

Our SigNature T molecular tag technology for molecular tagging and authentication of cotton fibers is currently in use by our customers. We are now tagging product in the United States to assure integrity of textile supply chains. Our SigNature T molecular tag commercial program involves the creation of unique SigNature T molecular tags that can be used to tag a customer's cotton fiber at the ginning stage. Installed in October 2016, our updated fully automated, secure DNA Transfer Systems allow for traceability and monitoring of all molecularly-tagged cotton at multiple gins in Arkansas, Texas and California. DNA Transfer Systems allow for expansion of tagging at other gins to support increased demand for tagging in future years.

Once tagged, the cotton fiber may be authenticated for textile identity from grower to ginner to spinner to manufacturer to distributor to retailer. At each step of the process, its textile identity will be tested to link the original cotton fiber to finished product, preserving the authenticity of the product and the integrity of the supply chain. SigNature T DNA tags are being used to mark premium Pima cotton fiber, known as PimaCott® and are also beginning to be used to mark Upland cotton, under the HomeGrown™ LoneStar™ and HomeGrown Acala™ trademarks. As the cotton ginning in the U.S. takes place sometime between September and March each year, it is possible that revenues from this business will be seasonal.

In June 2017, we announced that we had entered into a new licensing agreement with Himatsingka America, Inc., which is part of the Himatsingka Group. ("Himatsingka America"), a leading supplier of home textiles. This agreement terminates an earlier licensing agreement dated March 25, 2015 between Divatex Home Fashion, Inc. (a predecessor to Himatsingka America) and the Company. Under the terms of the Agreement, Himatsingka America will be solely responsible for promoting, marketing and selling on a worldwide basis the Company's technology with respect to finished and unfinished cotton products. The Agreement grants Himatsingka America an exclusive license to use our technology in respect of cotton, subject to certain carve-outs including governmental users, non-commercial trade associations and others. The Agreement has a term that continues until June 23, 2042, except in the case of patents, in which case the term continues with respect to a patent until such patent is no longer in effect. The Agreement also provides that Himatsingka America will make payments for the use of the Company's taggant technology on a net 60 days basis. In addition, Himatsingka America will make royalty payments on a quarterly basis in arrears in the event that our technology is used on non-home products. Himatsingka America is responsible for the inspection and compliance within the supply chain.

Himatsingka America is generally required to use our technology during the term of the Agreement, subject, among other things, to their customers' requirements. We are establishing an independent testing laboratory in Ahmedabad, India, which is required by the agreement. Finished products made from this tagged fiber will be offered for sale under the PimaCott®, HomeGrown®, LoneStar™ and HomeGrown Acala™ content branded labels. The Agreement includes customary mutual indemnification provisions. See also the information under the caption "—Distribution of our Products and Commercial Agreements—Himatsingka America."

In June 2015, we announced that we had signed a memorandum of understanding with LD Commodities Cotton LLC, one of the world's largest cotton merchandisers, to provide secure logistic supply chain support for the tagging and authentication of cotton fibers with SigNature T molecular tags. This memorandum of understanding expired on May 30, 2017.

In January 2016, we signed a cooperative research and development agreement ("CRADA") with the United States Department of Agriculture ("USDA") to collaborate on the development of genotyping assays for cultivars from specific geographic regions of the world. It is important to be able to differentiate cotton based on country of origin to help avoid "Conflict Cotton", cotton grown using child labor or other undesirable practices. We believe this will assist the cotton industry in protecting the quality and traceability of the products and help protect their economic investments.

On June 28, 2017, we signed a multi-year license agreement with GHCL Limited, a global manufacturer of home textiles, to provide CertainT platform services in connection with source-verified, polyethylene terephthalate (PET) and recycled PET (rPET post-consumer) in select home textile products. PET is the clear plastic best known for its use in water bottles, and is the most widely recycled plastic in the world. GHCL will use our CertainT platform in connection with PET and/or recycled PET blended bed sheets, pillowcases, and shams products sold in-store or online in the United States. GHCL has also licensed our CertainT trademark for use on its products, as well as for promotional, marketing and sales materials. The agreement provides for guaranteed minimum annual revenues in order to maintain exclusivity during the renewal period, as well as trademark licensing royalties to us. GHCL will use our CertainT platform for verifying PET and recycled PET authenticity from source to retail shelf. With this platform, GHCL assures that any of its textile products using PET and recycled PET will contain the original source raw materials. We will provide our patented and proprietary tagging, testing and tracking services to GHCL as a CertainT licensee. As part of the platform, Applied DNA's molecular tag is extruded into recycled components that create recycled PET fiber, with no impact to performance or quality of the fiber or filament yarns. Thereafter, any piece of CertainT-tagged textiles can be forensically authenticated by detecting the molecular tag in the recycled PET fiber, ensuring its authenticity and origin.

On July 11, 2017 we signed a new multi-year exclusive license agreement with Loftex Home, LLC ("Loftex"), a wellrespected manufacturer of high-quality towels and home textiles. Under a prior agreement entered into during March 2017, we agreed to provide our CertainT™ platform services to Loftex to verify the authenticity and origin of rPET (post-consumer) used in bath and beach towels. This new multi-year agreement between the two companies is now exclusive for bath and beach towels in the United States, non-exclusive for plush throws and bath rugs, and

provides for long term minimum annual revenues, in order to maintain exclusivity, as well as trademark licensing royalties to us.

Microcircuits and other electronics

The vast majority of counterfeits discovered in military equipment are semiconductors, the stamp-sized silicon wafers that act as the “brains” of nearly every type of modern electronic system. According to an article in DefenseOne (Counterfeits Can Kill U.S. Troops. So Why Isn’t Congress and DoD Doing More to Stop it? — August 8, 2013), the U.S. military is an important consumer of these tiny products; a single F-35 Joint Strike Fighter jet is controlled by more than 2,500 semiconductors.

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

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

The Defense Logistics Agency (DLA) is the nation’s combat support agent for logistics. DLA obtains and supplies almost 100% of the consumable items for America’s Warfighters. The Agency manages over 5.1 million parts, supports more than 2,500 weapon systems, and accounts for nearly 85% of the spare parts for our military forces. DLA’s reach extends far beyond DoD. The Agency supports Foreign Military Sales (FMS) to more than 100 nations. DLA provides significant support to worldwide humanitarian relief, the Federal Emergency Management Agency (FEMA), and other federal, state, and local customers.

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

Our Market Response

On November 15, 2012, DLA began to require that defense contractors provide certain items that have been marked with DNA produced by us or our authorized licensees. This requirement has been in place for items falling within Federal Supply Class (FSC) 5962, Electronic Microcircuits, which have been determined to be at high risk for counterfeiting.

Beginning on December 15, 2014, DLA's Electronic Product Test Center ("PTC") in Columbus, Ohio began DNA marking all FSC 5962 microcircuits. This change created a centralized, streamlined DNA marking process within DLA. On November 13, 2014, we were awarded a contract by DLA to provide DLA with SigNature DNA molecular tags and related equipment, services and training and that contract was extended for one year through November 12, 2016. A follow-on one-year contract (plus one exercise year) to ensure there is no lapse in support of the current DNA program at DLA's PTC was signed on October 14, 2016. The DLA has awarded the Company a one-year extension of its current contract through October 13, 2018.

The current program is more streamlined, with scaled-up processes, which has reduced certain costs by providing economies of scale, and benefits of marking technology geared to higher-volume operations. It is governed by a single direct contract with DLA.

In addition, on June 6, 2017, we were awarded a two-year, approximately $1.5 million competitive-bid development contract. The award, funded by the Office of the Secretary of Defense on behalf of the DLA, runs from June 1, 2017 to May 31 2019, and was granted via a Rapid Innovation Fund (RIF) that provides DLA with innovative technologies that can be rapidly inserted into acquisition programs to meet specific defense needs. Management oversight for this RIF contract will be from DLA HQ located in Fort Belvoir, Virginia. This firm-fixed price contract follows our prior RIF contract, described further below, that enabled us to develop counterfeit mitigation technologies based upon our proprietary DNA platforms, that protect plastics, silicone elastomers, oils, bearings, fasteners and many other high-risk commodities that are procured by DLA on behalf of DoD. This contract will extend our authentication platform to facilitate broader use in protecting high-risk or mission-critical material purchased by DLA.

In the third quarter of fiscal 2016, two contracts were completed: one for the Missile Defense Agency - Small Business Innovative Research ("SBIR") – and one for the OSD – RIF. The SBIR allowed for continuation of the effort focused on microcircuits and scale-up of the business model to support volume at the point of manufacture. The RIF expanded upon our DNA authentication program for FSC 5962 to identify authentic products and deter counterfeits from infiltrating DoD supply chains, by establishing a single authentication platform for the following six FSGs (as prioritized by DLA):

FSG 59 – Electrical and Electronic Equipment Components

FSG 31 – Bearings

FSG 25 – Vehicular Equipment Components

FSG 29 – Engine Accessories

FSG 47 – Pipe, Tubing, Hose, and Fittings

FSG 53 – Hardware and Abrasives

Together these contracts have strengthened our core capabilities to offer supply chain risk management solutions across an expanded range of critical components used in defense, industrial and consumer markets.

On November 20, 2017 we signed a Cooperative Research and Development Agreement ("CRADA") with the U.S. Army Research, Development and Engineering Command's Edgewood Chemical Biological Center ("ECBC") to study the commercialization of ECBC's innovative rapid, in-field DNA microarray technology for use in military and commercial supply chains. ECBC is the nation's primary DoD technical research organization for non-medical chemical and biological warfare defense.

Under the terms of the CRADA, a cooperative effort under the recently-announced DLAgency Rapid Innovation Fund award secured by us in June 2017, ECBC's subject matter experts and our science team will cooperatively study the feasibility of commercializing ECBC's in-field DNA detection technology in varied supply chains. ECBC's hand-held in-field DNA microarray technology allows for detection of a DNA taggant within a few minutes. The project goal is to demonstrate the system with our taggants introduced into standard inks or varnishes or onto other surfaces, without the need for DNA amplification or other sample preparation, thus greatly simplifying in-field DNA detection.

ECBC possesses an unrivaled chemical biological research and development infrastructure with scientists, engineers, technicians and specialists located at four different sites in the United States: Edgewood Area of Aberdeen Proving Ground, Md., Pine Bluff, Ark., Rock Island, Ill., and Dugway Proving Ground, Utah.

ECBC has a unique role in technology development that cannot be duplicated by private industry or research universities. It fosters research, development, testing, and application of technologies for protecting warfighters, first responders and the nation from chemical and biological warfare agents. ECBC is currently developing better ways to remotely detect these chemical and biological materials – before the warfighter or first responder ever enters the threat zone. ECBC is also developing a new generation of technologies to counter everything from homemade explosives to biological aerosols to traditional and non-traditional chemical hazards.

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Cash -in-Transit

Cash-in-transit businesses transport and store cash and ATM cassettes. In the U.K. alone, there is an estimated £500 billion being transported each year (approximately $755 billion as of December 2015) or £1.4 billion per day (approximately $2.2 billion) (British Security Industry Association: “Combating Cash Delivery Crime”). The nature of this business makes cash-in-transit an attractive target for criminals and as a result the industry invests in excess of £100 million (approximately $151.1 million) per year in security equipment and devices. Almost 25% of attacks in 2013 in the U.K. resulted in some kind of injury and the proportion of attacks where firearms were used has risen 4% from 2012 to 2013 (Professional Security Magazine Online, “Cash in Transit Attack Stats” (May 15, 2014)) making it more important than ever to be able to link the criminals to the crime. Since 2009, the number of CViT (Cash and Valuables in Transit) convictions attributed to the use of SigNature DNA in cash boxes has risen to more than 114, with prison sentences of over 540 years. SigNature DNA forensic tags are helping Police across Europe to identify stolen cash and to link the evidence directly to the perpetrators. According to the FBI, in 2015, more than $30 million was stolen and over 50 people were killed or injured in over 4,000 robberies of financial institutions across the nation (Bank Crime Statistics 2015 - FBI).

Our Market Response

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

To date, the use of SigNature DNA in the cash handling industry has allowed our products to facilitate the convictions of more than 114 criminals across Europe involved in cash-in-transit crime with aggregate prison sentences of over 540 years. SigNature DNA has been used since 2008 in Europe within the ink and / or smoke systems of Intelligent Bank Note Neutralisation Systems (“IBNS”), more commonly known as cash boxes and ATM cassettes. Unique, SigNature DNA molecular tags are incorporated into each IBNS during manufacture.

Consumer Asset Marking

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

Everyone has assets they want to look after - from household goods such as TVs, jewelry and antiques to office equipment including computers and laptops. There are a wide variety of valuable items that need to be uniquely identified and protected from theft. Forensic marking of home assets uses technology to code valuables at risk of theft to mark burglars, linking them directly with a crime scene.

Over the years, authorities have found it difficult to obtain convictions of thieves in possession of suspected stolen property unless the true owner can be identified. If marked items are stolen and later found, police can link them directly with the crime scene, not only allowing the property to be returned to its owner, but also increasing the chance of convicting the thieves.

Our Market Response

We believe that DNAnet, Smart DNA and Backtrac enhance law enforcement effectiveness by providing forensic quality evidence. The DNAnet, SmartDNA and Backtrac Asset Marking program provides a simple and cost-effective way for asset owners to deter crime and protect their property, a way for law enforcement to identify the rightful owners of lost or stolen property, and a way to tell criminals…stay away because you will get caught! Consumers can purchase a marking kit and apply a molecular tag to multiple items of property. In the event of theft, police or personnel with ultraviolet light equipment can reveal the molecular tag, and have its DNA authenticated at the Applied DNA laboratory, thus permitting the stolen property to be returned to the owner and serve as valuable evidence to increase the likelihood that perpetrators will be convicted.

Our Smart DNA is being used to protect the automobiles of two European automotive manufacturers against the theft of their automotive parts after being imported into at least one E.U. country. New cars are marked with a unique code applied at point of importation or delivery to the customer. Customer details are registered on a secure database. The DNA molecular tag provides absolute identification for the vehicle. The molecular tags are covert and difficult to remove. If found, vehicles and their component parts are traceable back to their owner and location, from anywhere on the globe. If the car is stolen and recovered, police will be able to link the criminal to the crime, and will know exactly where to return the vehicle. Highly visible warning stickers are displayed on the windshield of the car, deterring theft in the first place. Since 85% of stolen cars are taken after theft of car keys, other kinds of crime, such as home burglaries, potentially also would be deterred. To date, over 50,000 high-end cars have been marked with Smart DNA.

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

Printing and Packaging

The scourge of counterfeiting in packaging has greatly intensified in recent years. Counterfeiting has spiked, causing detrimental health concerns for consumers, safety concerns for law enforcement agencies, and financial concerns for businesses worldwide. As a result, the global anti-counterfeit packaging market is estimated to reach approximately $206.57 billion by the year 2021, according to Markets and Markets.

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

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

Our Market Response

Our integrated platform of forensic level molecular tags and optical and digital technologies offers a high level of security and flexibility in a cost-effective and easy-to-use format to suit the requirements and budget of most companies. They can be added to the varnish, ink or toner in labels and packaging to act as a trace without impacting the quality of the substrate. Our SigNify IF reader or forensic laboratory process is required to detect the molecular tags and verify that a label is authentic. Proprietary optical and digital technologies complement SigNature molecular tags with more rapid screening capability.

During September 2017 we entered into a strategic partnership with Videojet Technologies Inc. (Videojet). We have collaborated with Videojet in the design of co-branded SigNature® molecular-tagged Videojet inks, and a co-branded printer that electronically restricts the use of ink cartridges to only those that contain SigNature molecular tagged inks. The relationship brings the potential to empower the tagging of countless commercial items, all of which are candidates for a CertainT licensing agreement, enabling traceability along the entire supply chain. These solutions were jointly introduced during the last week of September 2017 at Pack Expo 2017 in Las Vegas, NV.

Integrating the technologies from both companies creates a world-class solution that will be offered to the many industries in which both companies are already engaged. Videojet's 325,000-installed base of printers, which code and mark well over ten billion products each day, is a testament to the power of continuous inkjet printing (CIJ) technology. The initial offering utilizes Videojet's newly released 1860 printer, which will be co-branded with us, along with co-branded Videojet inks that will incorporate our unique SigNature molecular tag into each individual ink cartridge. The SigNature-enabled inks will be brand-specific, enabling each brand to tag, test and track their products from source to shelf under a CertainT platform. Gaining this additional traceability, transparency, and ultimately trust between value chain partners will allow brands to offer a new level of certainty to their customers that the products they are buying are authentic. The initial rollout of co-branded SigNature molecular tagged inks includes an aerospace-approved ink. This durable black ink was chosen to qualify first, due to its specific application and use in US military and aerospace industry for item unique identifier (IUID) tags for an array of critical components spanning several FSGs. Initial qualification testing, confirming that the molecular tagged ink does not impact printer uptime or operation, was performed under our first RIF contract awarded by the Office of the Secretary of Defense. In addition to critical FSG items, this ink is most commonly used as a date/lot code marking solution for food, tobacco, coffee, baby, health and personal care.

Diagnostics and Reagents

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

According to an article from BCC Research, ("DNA Diagnostics Market to Almost Double by 2022 with 14.3% CAGR), the DNA Diagnostics market will reach $23.8 billion in 2022. The potential to provide accurate diagnosis and cost effectiveness over alternative diagnostic techniques are factors that supplement the growth of the DNA diagnostics market. Recent figures suggest that globally, approximately 32.5 million people are living with cancer (as of 2012) with 14.5 million people in the US living with cancer (as of 2014) and 36.7 million with HIV/AIDS (as of 2015) (International Agency for Research on Cancer, Cancer Fact Sheets, All Cancers (excluding non-melanoma skin cancer), Estimated Incidence, Mortality and Prevalence Worldwide in 2012; World Health Organization, Global Health Observatory (GHO) Data, Cancer Facts and Figures 2016,amFAR).These numbers, we believe are set to increase consistently; however, advanced automated DNA diagnostics technologies such as next generation sequencing could play a crucial role in diagnosing and curbing these diseases.(Allied Market Research, "DNA Diagnostics Market is Expected to Reach $19 Billion by 2020" (August 28, 2014))

Our Market Response

DNA also plays a role in therapeutics such as gene therapy and DNA-based vaccines. Following our acquisition of substantially all the assets of Vandalia Research, Inc. in September 2015, we are able to produce specific, high-quality DNA sequences with the PCR production system known as Triathlon, which is well suited to meet these pharmaceutic and diagnostic needs. Cell-based DNA production methods are often complicated by impurities. In contrast, our PCR-based production method offers a high degree of purity and efficiency. In April 2017, we were awarded a five year supply agreement for the manufacture of bulk DNA. This supply agreement includes quarterly shipments and optional three-year renewals. This multi-year contract is a diagnostic tool in treating disease.

Agrochemicals

The agrochemical industry is faced with an increased prevalence of illegal trade, counterfeiting and brand piracy. From the adulteration and counterfeiting of leading herbicides, pesticides and fertilizers with inferior materials, to the substitution of genetically modified seeds with low yield alternatives, crops are at risk more than ever. These issues threaten company reputations, supply systems, export markets and government tax revenues.

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

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

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

According to research by International Growth Center (2015), the vast majority of fertilizer samples from the Uganda study were substandard. Additionally, very few of the allegedly improved seeds showed success in producing large crops. In short, the agricultural inputs sold at retail level in Uganda are often ‘fake’ or of very poor quality. In the case of fertilizer, according to estimations by the Vietnam Fertilizer Association (2016), the country’s economy loses US$2

billion every year as a result of fake products. According to local market surveillance bodies, fake fertilizer manufacturers use many different techniques to cheat customers, including the use of formulas that differ from what is printed on the package and imitating established market brands.

Adulterated fertilizer is recognized as a global problem. The Vietnam Fertilizer Association estimates that substandard fertilizer costs the country's economy $2 billion dollars a year. In addition, 1,000 metric tons are seized annually for quality violations. In Uganda, a blind test revealed that urea on sale to farmers contained 33 percent less nitrogen than advertised and in Tanzania, an estimated 40 percent of fertilizers are believed to be fakes.

Without appropriate restoration of the organic and mineral content of depleted soils, farmers often clear new land, contributing to the global deforestation problem. By improving the quality of arable land, farmers can turn less to deforestation, which represents as much as 30% of global greenhouse emissions. Africa, with a huge agricultural potential, uses less than 15 kgs of fertilizer per hectare, only a tenth of the global average. As a result, 75 percent of African soils are degraded, costing the continent $4 billion per year. FAO (Food and Agricultural Organization of the United Nations) forecasts the global fertilizer demand to be 199 million metric tons in 2019.

Our Market Response

On August 8, 2017, we announced the introduction of our molecular tag to the fertilizer industry in co-operation with Rosier S.A., ("Rosier") a mineral fertilizer manufacturer based in Moustier, Belgium. Rosier sells high quality mineral fertilizers globally, and in Europe, through its exclusive distributor, Borealis L.A.T. Together with Rosier we launched a pilot to DNA-tag fertilizer pellets in order to detect the dilution of genuine fertilizer with sub-standard material within a given batch, and to be able to trace the batch to its original manufacturing location. Since the initiation of this study, we, in partnership with Rosier, have effectively marked fertilizer pellets and have successfully authenticated and detected the dilution of fertilizer with unmarked material in a variety of laboratory and in-field tests over a nine-month period. A marked shipment of fertilizer has travelled through the supply chain in West Africa and pellets have been analyzed in the field utilizing our in-field DNA detection technology (SigNify® IF) to provide definitive real-time authentication of the SigNature DNA molecular tags, ensuring that the fertilizer had not been adulterated with unmarked material. The pellets tested were proven to be genuine and demonstration of the technology gained further support for the use of molecular taggants to combat counterfeiting and to aid the many countries that are affected by adulterated fertilizer.

Future Markets:

Pharmaceuticals

From cyber-attacks in large pharmaceutical companies like the one that affected a large global healthcare leader earlier this year to the rising opioid crisis, the pharmaceutical supply chain has more risk inherent than ever before. Reducing supplier risk to help boost patient safety is becoming more important than ever to pharmaceutical companies.

Illegal activities such as counterfeiting, diversion and cyberattacks also undermine the efforts of the government to ensure the availability of affordable drugs to its citizens, thus enabling the proliferation of disease, which can lead to development of drug resistant pathogens.

The pharmaceutical industry also faces major problems relative to counterfeit, diluted, or falsely labeled drugs that make their way through healthcare systems worldwide, posing a health threat to patients and a financial threat to drug makers and distributors. Counterfeit prescription pharmaceuticals are a growing trend, widely recognized as a public health risk and a serious concern to public health officials, private companies, and consumers. The National Association of Boards of Pharmacy estimates that counterfeit drugs account for 1% of all drugs sold in the United States. The World Health Organization (WHO) estimates the annual worldwide “take” from counterfeit drugs to be £13 billion (approximately $19.6 billion as of December 2015), a figure that is expected to double by the end of this decade. In some countries, counterfeit prescription drugs comprise as much as 70% of the drug supply and have been responsible for thousands of deaths in some of the world’s most impoverished nations, according to the WHO. The global pharmaceuticals and food anti-counterfeiting market is expected to reach $160 billion by 2020. (Radiant Insights, “Global Pharmaceuticals and Food Anti-Counterfeiting Market Is Expected to Reach USD 160.32 Billion by 2020” (September 28, 2015))

In 2012, the WHO reported that in over 50% of cases, medicines purchased over the Internet from illegal sites that conceal their physical address have been found to be counterfeit (WHO: Medicines: Spurious/falsely-labelled/falsified/counterfeit (SFFC) medicines Fact Sheet June 2012). According to the WHO, counterfeiting can apply to both branded and generic products and counterfeit pharmaceuticals may include products with the correct ingredients but fake packaging, with the wrong ingredients, without active ingredients or with insufficient active ingredients.

Based on this growing threat, many countries have started to address vulnerabilities in the supply chain by enacting legislation which, among other things, requires a comprehensive system, most often referred to as serialization or in

the United States as Drug Supply Chain Security.

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

Drug supply chain security and serialization requirements affect all aspects of the pharmaceutical supply chain, starting with the manufacturer down through the packager, wholesaler, distributor and final dispensing entity. The laws provide an ‘audit trail’ (or documented evidence) to help to identify and catch counterfeiting and diversion. Serialization requires manufacturers, or in some virtual supply chains third-party packagers, to establish and apply to the smallest saleable unit package or immediate container a “unique identification number.” In some cases, drug makers are spending as much as 8 to 10 percent of a medicine pack’s total production cost on solutions to protect it from duplication and counterfeiting, according to company executives (Business Standard (August 20, 2012)).

Our Market Response

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

Our unique DNA identifier mark-embedded in the ink of a unique serialized barcode can provide a layered security foundation for a customer solution in this market. Strengthening the bar codes to be utilized in the serialization process can be a potent approach to protecting the patient and bringing greater confidence to the brand of the pharmaceutical company.

In addition, DNA identifier molecular taggants can be embedded at parts per billion onto film coatings that cover many of the world's leading brands of tablets. By integrating the Applied DNA molecular tags within already utilized film coatings of tablets, we are offering a seamless solution for pharmaceutical company customers.

On December 14, 2017, we entered into a non-binding technology license memorandum of understanding with Colorcon, Inc. ("Colorcon"). Under the terms of the memorandum, we will receive milestone payments as well as revenue sharing for product sales and authentication services. The memorandum will enable us to combine our molecular taggant and authentication technology with Colorcon's portfolio of film coating systems, inks and color dispersions for use in solid oral dosage forms in the pharmaceutical and nutraceutical industries. Our collaboration with Colorcon will commercialize a platform for traceability directly on dose, and is intended to significantly reduce the risks associated with counterfeit and falsified medications entering the drug supply chain.

Personal Care

Never has it been so important to know where cosmetic materials come from. In the fast-moving $197 plus billion global cosmetic industry, sustainable claims for materials has now moved on to origin of materials claims. Brands no longer want just good quality grape juice. They want quality juice from French Champagne grapes. The next trend entering the market will be Proof of Origin as regulators and consumer groups challenge brands asking for evidence.

Personal Care is fashion led and fast to market. The industry prides itself in being an early adopter and adapter of the very latest technologies. For example, skin care brands took *Botox,* stem cell technology and peptide chemistry, out of medical laboratories and into the market place, by adapting their functions for the industry's own needs. Personal care brands are ravenous for the next high tech idea they can champion.

Sustainability is a strong underlying theme driving personal care (Forum for The Future, 2015). For the past 10 years, multinationals have been embracing corporate social responsibility (CSR), endeavoring to become greener and reduce their negative impact on the planet. Prior to the sale of Body Shop to Natura, L'Oréal, through its brand, The Body Shop, lead the way with *Community Trade,* where the people harvesting and processing ingredients benefit from sales, in return for their story. L'Oréal pledged to double the number of community traded materials from 19 to 40 communities by 2020 (Guardian, 2016). It is comforting to hear Alessandro Mendes (Innovation and R&D Sr Director

at Natura) reassure the delegates at the 2017 In Cosmetics Formulation Summit that as The Body Shop's new owners, Natura, intend to continue to support the growth community traded materials. The Body Shop acquisition will help bolster Natura's campaign to protect the Amazon rainforest. The trend of marketing products based on the source of their ingredients is gaining greater market weight than the product’s efficacy and now, the origin of materials has become the main reason for buying many personal care products. Personal care brands know millennials are twice as likely to purchase from a brand because of its genuine sustainability credentials (Morgan Stanley, 2015).

At the In Cosmetics Formulation Summit on Protection in London in 2016, Jason Matthews (International Regulatory Affairs & Scientific Director at The Body Shop) stressed how important it is for all brands to know, not just the source of materials but every step in their supply chains. He talked about slavery, pointing out that companies found to be using materials involving slavery are breaking the law in the UK and USA. He showed heart wrenching examples of inhumane practice such as the fire in 2012 at Ali Enterprises in India where barred windows and locked fire exits caused the death of 250 workers and the disaster in Bangladesh in 2013 when the poorly constructed Rana Plaza building collapsed killing over 1,137 workers. These workers were making clothing for U.S., Canadian and European clothing labels and retailers. He used these examples to emphasize to personal care brands, how they cannot afford to be associated with such disasters.

Cosmetic brands rely on internal and external ethical auditing, often with certification, to manage their supply chains. The number of certification bodies is growing. It is no longer enough to talk about a company’s good practice without supplying proof. Multinationals, their brands and their material suppliers therefore strive for ISO certification and most are also using materials certified by the expanding number of NGO auditing groups. Raw material suppliers and personal care manufacturers boast ISO 9001 quality management standards and many are obtaining ISO 26000, which provides guidance on how businesses and organizations can operate in a socially responsible way. Many brands demand that their products are made with palm oil from responsible sources, i.e. those with Round Table on Sustainable Palm Oil (RSPO) certification and have their sustainable finished products certified by organizations such as Cradle to Cradle™. The personal care industry is not complacent and companies know improvements are needed. They are aware through scandals such as the recent discovery that beef in the UK foods was in fact horse meat, that even the best audited paper trail is vulnerable to abuse (Guardian, 2013).

Also at the In Cosmetics Formulation Summit on Protection in London in 2016, Prof Monique Simmonds, Deputy director of Kew showed evidence of adulteration in botanical materials destined for health supplements and for personal care. Some of the materials they had removed from the supply chain were toxic and could have been lethal. Adulteration and counterfeit cosmetics continues to grow. Counterfeit make-up products containing over 200 times the safe level of lead, arsenic, mercury, copper and cadmium have been seized (Daily Mail, 2015). Because social media can quickly spread bad news to millions of consumers, distancing themselves from dangerous counterfeit products and so protecting brand integrity, has never been more important. Also, the trend in cosmetics is moving away from elitist prestige products and towards masstige and so increasing the opportunities for even more counterfeiting. Personal care brands also cannot afford the financial losses due to counterfeiting, which in the EU is estimated to be $4.7 billion/pa (OECD, 2016).

Our Market Response

We believe that our Signature DNA molecular tags and related technologies are the solution to the need to prove quickly the origin of materials when challenged. Signature DNA molecular tags allow the whole supply chain to be followed as never before. We have shown this year that Aloe vera whole leaf extract, a common ingredient in cosmetics, can be tagged using SigNature Molecular Molecules (EuroCosmetics Sept. 2017). Our SigNature molecular tags enable the fast confirmation that Aloe vera is present in complex consumer products, where other techniques, such as searching for Aloe vera's Bar Code of Life DNA and for the characteristic acemannan molecular aloe vera identifier, fail.

Signature DNA is the next cutting-edge technology for the cosmetic industry to digest, adopt and adapt. SigNature DNA molecular tags are safe, approved for cosmetic use and so can be included today in cosmetic grade raw materials and in finished personal care products, for traceability. Our laboratories at Stony Brook, NY have shown that prestige skin care products already contain far greater background DNA than we need for tracing. (Routinely, SigNature DNA is included at parts per trillion (0.001µg/mg) and in the case of one skin care product, the background DNA content was 6µg/mg of product). Because SigNature DNA molecular tags have no connection with genetically modified organisms (GMO) in any way, we believe they are perfect for personal care, especially for natural brands. The latest advances in forensic science technology enable the presence of SigNature DNA molecular tags in a material, to demonstrate in just one hour, even out in the field, making it an effective practical solution for large numbers of supply chain issues.

Our technology enables brands hungry for the next big trend, to now move on from sustainability to authenticity.

Personal care companies using our technologies in their supply chains will become the auditors and certifiers friend. Their paper trails of signatures supporting origin claims will now be supported by forensic proof.

Food and Beverage

Each year, millions of people are deceived into buying counterfeited food and beverages, posing significant health and safety risks. Thousands of tons of fake and sub-standard food and drink were seized in 57 countries around the world as part of an INTERPOL-Europol coordinated operation. Operation Opson V, conducted from November 2015 through February 2016, resulted in the seizure of more than 11,000 tons of counterfeit and illicit food (Fortune “Largest Ever Bust of Counterfeit Foods Finds Gruesome Stuff Including Monkey Meat” April 8, 2016).The initiative, in its fifth year, brought in a record haul, seizing “foods” like monkey meat, locusts and caterpillars, as well as fake alcohol.

Counterfeit food threats are becoming more common as supply chains become more global and as imaging and manufacturing technology become more accessible. The distribution and selling of counterfeit foods is officially known as economically motivated adulteration (EMA), a subcategory of food fraud. EMA can be anything from altering the weight of the product by adding a lower quality ingredient to tampering with the product's label. Diluting fruit juice with water, adding chemicals to boost the protein content of a food, and changing the expiration dates on meat labels are all good examples. These acts are illegal, of course, and potential health concerns, but the issue is widespread and hard for the government to control. In fact, according to the U.S. Pharmacopeial Convention (USP), an estimated 7% of products in grocery stores nationwide contain fraudulent ingredients. There are numerous alarming examples of counterfeit foods that have been reported. For instance, long-grain rice is being labeled and sold as basmati rice, Spanish olive oil is being bottled and sold as Italian olive oil, and mixtures of industrial solvents and alcohol are being sold as vodka. In addition, herbal teas have been found to contain no herbs or tea and juices have been found to contain vegetable oil, which is used as a flame retardant, and labeled tuna turns out to be an unidentifiable concoction of random meats. The National Center for Food Protection and Defense ("NCFPD") has estimated the annual impact to the food industry from fraud to be $10 billion to $15 billion annually— often due to product disguising the country of origin, substitution, dilution and false labeling (NCFPD, Amy Kircher, Economically Motivated Adulteration and FIDES (2012)). Globally, the anti-counterfeit packaging market accounted for $57.4 billion in 2013, which is forecast to generate revenue of $142.7 billion by 2020 at 13.9% CAGR from 2013-2020. (Allied Market Research, "Anti-Counterfeit Food Packaging Market is Expected to Reach $62.5 Billion, Globally by 2020" (May 28, 2015)).

Our Market Response

Working with industries leaders such as The Lily of the Desert brand, who are one of the biggest producers of aloe vera products, we believe our SigNature DNA molecular tags and authentication program can help in the battle against counterfeit foods and beverages and increasingly be utilized for proving where raw ingredients are sourced and that they are sourced in sustainable conditions. We operate under ISO 9001:2008 certification and provide DNA-based security and authentication solutions that help protect brands and their supply-chains. Our SigNature DNA tags and authentication solutions ensure transparent identification and tracking of branded products, helping to maintain supply chain integrity and security and detect and prevent counterfeiting

Sales and Marketing

We have 13 employees engaged in sales and marketing, of which nine are directly involved with sales. We expect to hire additional sales directors and/or consultants and increase our use of channel and strategic partners to assist us with sales and marketing efforts with respect to our target vertical markets.

Research and Development

Our research and development efforts are primarily focused on incorporating DNA molecular tags into carriers (such as ink or textiles and more recently the incorporation of DNA into the body of materials such as thermoplastics) and then authenticating DNA obtained from those marked products both in our laboratories and in the field, with the development of portable infield DNA readers. As part of this effort, we typically conduct feasibility and pilot testing to ensure that DNA tagging methods are compatible with the customer's manufacturing and logistic processes, and that they can be implemented in a cost effective manner. In some cases, the DNA incorporation methods may undergo wash-out and/or adherence tests to ensure that DNA can be authenticated on a product even if it is subjected to aggressive processing techniques. We are also actively involved in developing new DNA formulations and new methods to incorporate those new DNA formulations into products, to provide for better adhesion of DNA onto surfaces and when appropriate, better blending of the DNA into the body of a product material. In short, we have considerable experience working with a wide range of carriers and substrates, and authenticating them even years after they have been applied onto the surface or inside of product materials. We believe that our continued development of new and enhanced technologies relating to our core business is essential to our future success. We incurred approximately $2.3 million and $3.7 million on research and development activities for the fiscal years ended September 30, 2017 and 2016, respectively.

Raw Materials and Suppliers

Our sources of raw materials include sources of DNA that are readily available in nature, which we are able to replicate to use in our product offerings.

Manufacturing

We have the capability to manufacture SigNature DNA molecular tags and all of our products at our laboratories in Stony Brook. We also have in-house capabilities to complete all authentications. We are also engaged in the large-scale production of specific DNA sequences using PCR.

Distribution of our Products and Commercial Agreements

Our products are distributed in the following ways:

- directly to the customer;
- through channel partners; and
- through licensed distributors.

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

DLA. On November 13, 2014, we were awarded a contract by DLA to provide DLA with SigNature DNA molecular tags and related equipment, services and training. Beginning on December 15, 2014, DLA's Electronic Test Laboratory in Columbus, Ohio began DNA marking all FSC 5962 microcircuits. This created a centralized, streamlined DNA marking process within DLA. This contract was extended through November 12, 2016. A follow-on one-year contract (plus one exercise year) to ensure there is no lapse in support of the current DNA program at DLA's PTC was signed on October 14, 2016. The DLA has awarded us a one-year extension of our current contract through October 13, 2018.

Office of the Secretary of Defense. On June 6, 2017, we were awarded a two-year, approximately $1.5 million competitive-bid development contract. The award, funded by the Office of the Secretary of Defense on behalf of the DLA, runs from June 1, 2017 to May 31 2019, and was granted via a Rapid Innovation Fund (RIF) that provides DLA with innovative technologies that can be rapidly inserted into acquisition programs to meet specific defense needs. Management oversight for this RIF contract will be from DLA HQ located in Fort Belvoir, Virginia. This firm-fixed price contract follows our prior RIF contract, which expired during August 2016, that enabled us to develop counterfeit mitigation technologies based upon our proprietary DNA platforms, that protect plastics, silicone elastomers, oils, bearings, fasteners and many other high-risk commodities that are procured by DLA on behalf of DoD. This contract will extend our authentication platform to facilitate broader use in protecting high-risk or mission-critical material purchased by DLA.

Himatsingka America. In June 2017 , we announced that we had entered into a new licensing agreement with Himatsingka America, Inc., which is part of the Himatsingka Group. ("Himatsingka America"), a leading supplier of home textiles. This agreement terminates an earlier licensing agreement dated March 25, 2015 between Divatex Home Fashion, Inc. (a predecessor to Himatsingka America and the Company. Under the terms of the Agreement, Himatsingka America will be solely responsible for promoting, marketing and selling on a worldwide basis the Company's technology with respect to finished and unfinished cotton products. The Agreement grants Himatsingka America an exclusive license to use our technology in respect of cotton, subject to certain carve-outs including governmental users, non-commercial trade associations and others. The Agreement has a term that continues until June 23, 2042, except in the case of patents, in which case the term continues with respect to a patent until such patent is no longer in effect. The Agreement also provides that Himatsingka America will make payments for the use of the Company's taggant technology on a net 60 days basis. In addition, Himatsingka America will make royalty payments on a quarterly basis in arrears in the event that our technology is used on non-home products. Himatsingka America is responsible for the inspection and compliance within the supply chain.

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Himatsingka America is generally required to use our technology during the term of the Agreement, subject, among other things, to their customers' requirements. We will be required by the agreement to establish an independent testing laboratory in Ahmedabad, Finished product made from this tagged fiber will be offered for sale under the PimaCott®, HomeGrown® LoneStar™ and HomeGrown Acala™ content-branded labels.

On June 28, 2017, we signed a multi-year license agreement with GHCL Limited ("GHCL"), a global manufacturer of home textiles, to provide CertainT platform services in connection with source-verified, polyethylene terephthalate (PET) and recycled PET (rPET post-consumer) in select home textile products. PET is the clear plastic best known for its use in water bottles, and is the most widely recycled plastic in the world. GHCL will use our CertainT platform in connection with PET and/or recycled PET blended bed sheets, pillowcases, and shams products sold in-store or online in the United States. GHCL has also licensed our CertainT trademark for use on its products, as well as for promotional, marketing and sales materials. The agreement provides for guaranteed minimum annual revenues in order to maintain exclusivity during the renewal period, as well as trademark licensing royalties to us. GHCL will use our CertainT platform for verifying PET and recycled PET authenticity from source to retail shelf. With this platform, we believe that GHCL is assured that any of its textile products using PET and recycled PET will contain the original source raw materials. We will provide our patented and proprietary tagging, testing and tracking services to GHCL as a CertainT licensee. As part of the platform, our molecular tag is extruded into recycled components that create recycled PET fiber, with no impact to performance or quality of the fiber or filament yarns. Thereafter, any piece of CertainT-tagged textiles can be forensically authenticated by detecting the molecular tag in the recycled PET fiber, ensuring its authenticity and origin.

On July 11, 2017 we signed a new multi-year exclusive license agreement with Loftex Home, LLC ("Loftex"), a well-respected manufacturer of high-quality towels and home textiles. Under a prior agreement entered into during March 2017, we agreed to provide our CertainT™ platform services to Loftex to verify the authenticity and origin of rPET (post-consumer) used in bath and beach towels. This new multi-year agreement between the two companies is now exclusive for bath and beach towels in the United States, non-exclusive for plush throws and bath rugs, and provides for long term guaranteed minimum annual revenues, in order to maintain exclusivity, as well as trademark licensing royalties to us.

Rosier S.A. On August 8, 2017, we announced the introduction of our molecular tag to the fertilizer industry in cooperation with Rosier S.A. ("Rosier"), a mineral fertilizer manufacturer based in Moustier, Belgium. Rosier sells high quality mineral fertilizers globally, and in Europe, through its exclusive distributor, Borealis L.A.T. Together with Rosier we launched a pilot to DNA-tag fertilizer pellets in order to detect the dilution of genuine fertilizer with sub-standard material within a given batch, and to be able to trace the batch to its original manufacturing location. Since the initiation of this study, we, in partnership with Rosier, have effectively marked fertilizer pellets and have successfully authenticated and detected the dilution of fertilizer with unmarked material in a variety of laboratory and in-field tests over a nine-month period. A marked shipment of fertilizer has travelled through the supply chain in West Africa and pellets have been analyzed in the field utilizing our in-field DNA detection technology (SigNify® IF) to provide definitive real-time authentication of the SigNature DNA molecular tags, ensuring that the fertilizer had not been adulterated with unmarked material. The pellets tested were proven to be genuine and demonstration of the technology gained further support for the use of molecular taggants to combat counterfeiting and to aid the many

countries that are affected by adulterated fertilizer.

Videojet. During September 2017, we entered into a strategic partnership with Videojet Technologies Inc. (“Videojet”). We have collaborated with Videojet in the design of co-branded SigNature® molecular-tagged Videojet inks, and a co-branded printer that electronically restricts the use of ink cartridges to only those that contain SigNature molecular tagged inks. The relationship brings the potential to empower the tagging of countless commercial items, all of which are candidates for a CertainT licensing agreement, enabling traceability along the entire supply chain. These solutions were jointly introduced during the last week of September 2017 at Pack Expo 2017 in Las Vegas, NV.

Customer Concentration

Our revenues earned from sale of products and services for the fiscal year ended September 30, 2017 include 29%, 26%, 13% and 10%, respectively from four customers of the Company's total revenues. These four customers accounted for approximately 97% of our total accounts receivable at September 30, 2017. At September 30, 2017, one customer accounted for 80% of our accounts receivable. Our revenues earned from sale of products and services for the fiscal year ended September 30, 2016 included 33%, 29% and 13%, respectively, from three customers of our total revenues. These three customers accounted for approximately 20% of our total accounts receivable at September 30, 2016. At September 30, 2016, one customer accounted for an aggregate of 78% of our total accounts receivable. 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.

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: 3DTL Inc., Alp Vision Sa, Authentix Inc., Brandwatch Technologies, Chromologic LLC, Collectors Universe Inc., Collotype Labels International, Data Dot Technology, De La Rue Plc., Digimarc Corp., DNA Technologies, Inc., DuPont Authentication Systems, FractureCode Corporation, Haelixa, ICA Bremen GmbH, ID Global Solutions Corporation, IEH Corporation Informium AG,, Eastman Kodak Company, L-1 Identity Solutions Inc., opSec Security Group plc., MicroTagTemed Ltd., Nanotech Security Corp., Nokomis, Inc., ProoftagSAS, SafeTraces Inc., Selectamark Security Systems plc, Spectra Systems Corp., SmartWater Technology, Inc., Sun Chemical Corp, TraceTag International, TruTag Technologies Inc., YottaMark Inc., and Safe Traces, Inc.

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.

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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 53 patents, 75 patent applications, 45 trademark registrations, and 11 trademark applications, and our trade secrets, copyrights and other intellectual property rights are important assets for us. Our patents will expire at various times between 2021 and 2033. The duration of our trademark registrations varies from country to country. However, trademarks are generally valid and may be renewed indefinitely as long as they are in use and/or their registrations are properly maintained.

On May 31, 2016, 3SI granted a non-exclusive license to us to exploit, including the rights to have manufactured and have assembled and offer for sale, sell, market, advertise and distribute nucleic acid tags suitable for use in any product or system covered by one or more valid claims in any unexpired patents worldwide. On September 11, 2015, as part of the Vandalia Asset Acquisition, Marshall University Research Corporation consented to the assignment and transfer of Vandalia's exclusive worldwide right and license under patents to manufacture, use, produce, sell and have sold, market and develop the Triathlon DNA production system or derivatives therefrom to us.

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

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.

Government Approvals

We do not require any governmental approvals of our principal products or services.

Impact of Government Regulation

We and our products are subject to regulation by various U.S. federal regulatory agencies such as the Federal Trade Commission and are subject to regulation by the Occupational Safety and Health Administration ("OSHA") concerning employee safety and health matters. Such regulations principally relate to the ingredients, labeling, packaging, advertising and marketing of our products. There are no significant capital expenditures for government regulation matters either planned in the current year or expected in the near future.

Compliance with Environmental Law

We believe that we are in compliance with all applicable environmental law.

Employees

As of September 30, 2017 we had a total of 57 employees, consisting of 55 full-time and 2 part-time employees, including 4 in management, 9 in research and development, 1 in life sciences, 3 in forensics, 8 in quality assurance and compliance, 4 in finance and accounting, 1 in Legal, 7 in operations, 13 in sales and marketing, 1 in human resources, 1 in shared services, 4 in information services, and 1 in product development. We expect to increase staffing dedicated to sales, research and development, manufacturing, and production. Expenses related to travel, marketing, salaries, and general overhead will be increased as necessary to support our growth in revenue. 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 human capital is dependent upon our ability to generate revenues and obtain sources of funding. As we continue to expand, we will incur additional costs for human capital. Since June 2012, we have been working with Insperity Inc. to assist in managing many of our back-end administrative human resources, benefits, and payroll responsibilities. We are an at-will employer and generally do not enter into employment agreements requiring our employees to continue in our employment for any period of time, with the exception of our Chief Executive Officer, Dr. James A. Hayward. The initial term of Dr. Hayward's current employment agreement is July 1, 2016 through June 30, 2017, and this employment agreement automatically renews for one-year periods subject to ninety days' prior notice of non-renewal by Dr. Hayward or us in accordance with the terms of the employment agreement. As of June 30, 2017, the employment contract renewed for an additional year.

Available Information

We are subject to the informational requirements of the Exchange Act, which requires us to file our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, amendments to such reports and other information with the SEC. This information is available at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Information on the operation of the Public Reference Room can be obtained by calling the SEC at 1-800-SEC-0330. Because we file documents electronically with the SEC, you may also obtain this information by visiting the SEC's website at: *www.sec.gov*. Our website is located at: *www.adnas.com*. The information on, or that may be accessed through, our website is not incorporated by reference into and should not be considered a part of this report.

ITEM 1A. RISK FACTORS.

Because of the following factors, as well as other variables affecting our operating results and financial condition, past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. In addition to the factors discussed elsewhere in this report and our other reports and documents filed with the SEC, the following are important factors that could cause actual results or events to differ materially from those contained in any forward-looking statements made by us or on our behalf. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we may currently deem immaterial also may impair our business, financial condition, operating results and/or stock price. If any of the following risks or such other risks actually occurs, our business, financial condition, operating results and/or stock price could be harmed. In the following factors, "volatility in our share price", "adverse impact on the price (or value) of our shares", "decline in the price of our common stock" and similar terms also refer to our warrants and shares to be received upon exercise of our warrants.

Risks Relating to Our Business:

We have have not produced significant revenues. This makes it difficult to evaluate our future prospects and increases the risk that we will not be successful.

Our operations since inception have produced limited revenues, and may not produce significant revenues in the near term, or at all, which may harm our ability to obtain additional financing and may require us to reduce or discontinue our operations. If we create significant revenues in the future, we expect to derive most of such revenues from the sale of supply chain security and product authentication solutions. You must consider our business and prospects in light of the risks and difficulties we will encounter as a company operating in a rapidly evolving industry. We may not be able to successfully address these risks and difficulties, which could significantly harm our business, operating results, and financial condition.

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

We incurred net losses of $12.9 million and $12.2 million for the fiscal years ended September 30, 2017 and 2016, respectively. These net losses have principally been the result of the various costs associated with our selling, general and administrative and research and development expenses as we expanded operations, acquired, developed and validated technologies and expanded marketing activities. Our operations are subject to the risks and competition inherent in a company that moved from the development stage to an operating company. We may not generate sufficient revenues from operations to achieve or sustain profitability on a quarterly, annual or any other basis in the future. Our revenues and profits, if any, will depend upon various factors, including whether our existing products and services or any new products and services we develop will achieve market acceptance. If we continue to incur losses, then our accumulated deficit will continue to increase which may significantly impair our ability to obtain additional financing. As a result, our business, results of operations and financial condition would be significantly harmed, and we may be required to reduce or terminate our operations.

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

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

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

Our revenue earned from the sale of products and services for the fiscal year ended September 30, 2017 included an aggregate of 78% of our total revenues from four customers. These four customers accounted for approximately 97% of our total accounts receivable at September 30, 2017. At September 30, 2017, one customer accounted for an aggregate of 80% of our total accounts receivable. Our revenues earned from sale of products and services for the fiscal year ended September 30, 2016 included an aggregate of 75% from three customers of our total revenues. These three customers accounted for approximately 20% of our total accounts receivable at September 30, 2016. At September 30, 2016, one customer accounted for 78% of our total accounts receivable. Generally, our customers do not have an obligation to make purchases from us and may stop ordering our products and services or may terminate existing orders or contracts at any time with little or no financial penalty. The loss of any of our significant customers, any substantial decline in sales to these customers, or any significant change in the timing or volume of purchases by our customers could result in lower revenues and could harm our business, financial condition or results of operations.

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

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

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

Dependence on channel partners.

Our future growth will depend to a material extent on the successful advocacy of our technology by channel partners to their members and customers, and implementation of our technology in solutions propagated by channel partners and provided by third parties. Our business has relied on the success of business partners. Our continuing success is largely dependent on a new generation of business partners involved in our tagging technology.

If our channel partners are not successful in advocating and deploying our technology, we may not be able to achieve and sustain profitable operations. If other business partners who include our technology in their products or otherwise license our intellectual property for use in their products cease to do so, or we fail to obtain other partners who will incorporate, embed, integrate or bundle our technology, or these partners are unsuccessful in their efforts, expanding deployment of our technology and increasing revenues will be adversely affected. Consequently, our ability to increase revenue could be adversely affected and we may suffer other adverse effects to our business. In addition, if our technology does not perform according to market expectations, our future sales would suffer as customers seek and employ alternative technologies.

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Many of our business endeavors can be impeded or frustrated by larger, more influential companies or by standard-setting bodies or institutions downplaying, minimizing or rejecting the value or use of our technology. A negative position by such companies, bodies or institutions, could result in obstacles for us that we would be incapable of overcoming and may block or impede the adoption of our technology. In addition, potential customers may delay or reject initiatives that relate to deployment of our technology. Such a development would make the achievement of our business objectives in this market difficult or impossible.

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

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

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

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

If we are unable to continue to retain the services of Dr. Hayward, 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. On July 28, 2016, we entered into a new employment agreement with Dr. Hayward. The initial term is from July 1, 2016 through June 30, 2017, with automatic one-year renewal periods. As of June 30, 2017, the employment contract renewed for an additional year. Loss of the services of Dr. Hayward could significantly harm our business, results of operations and financial condition. We do not maintain key-person insurance on the life of Dr. Hayward.

The markets for our supply chain security 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 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: 3DTL Inc., Alp Vision Sa, Authentix Inc., Brandwatch Technologies, Chromologic LLC, Collectors Universe Inc., Collotype Labels International, Data Dot Technology, De La Rue Plc., Digimarc Corp., DNA Technologies, Inc., DuPont Authentication Systems, FractureCode Corporation, Haelixa, ICA Bremen GmbH, ID Global Solutions Corporation, IEHCorporationInformium AG,, Eastman Kodak Company, L-1 Identity Solutions Inc., opSec Security Group plc., MicroTagTemed Ltd., Nanotech Security Corp., Nokomis, Inc., ProoftagSAS, SafeTraces Inc., Selectamark Security Systems plc, Spectra Systems Corp., SmartWater Technology, Inc., Sun Chemical Corp, TraceTag International, TruTag Technologies Inc., YottaMark Inc., and Safe Traces, Inc.

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.

Revenues from our customer contracts with respect to cotton will be seasonal and may also be subject to weather conditions and other factors beyond our control, which may cause our operating results to fluctuate significantly quarterly and annually.

A significant and growing proportion of our revenues is expected to derive from customer contracts for tagging, authentications and other services related to cotton. The cotton ginning season in the United States takes place between September and March each year. Therefore, revenues from our customer contracts relating to cotton will be seasonal, which may cause our operating results to fluctuate significantly quarterly and annually. Additionally, weather and climatic conditions, natural disasters and other factors beyond our control also affect the production and sale of cotton and other agricultural commodities to which our customer contracts may relate, as well as our customers' or prospective customers' decisions regarding purchases of our products and services, and may cause our operating results to fluctuate significantly quarterly and annually. The seasonal fluctuations in operating results described above may cause a decline in the price of our common stock.

Fluctuations in quarterly results.

Our revenues and profitability are difficult to predict due to the nature of the markets in which we compete, fluctuating user demand, the uncertainty of current and future global economic conditions, and for many other reasons, including that our operating results are highly dependent on the volume and timing of orders received during a quarter, which are difficult to forecast. Customers generally order on an as-needed basis and we typically do not obtain firm, long-term purchase commitments from our customers.

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

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

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

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

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

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

- operations and financial systems;

- procedures and controls; and

- training and management of our employees.

Our future growth, if any, may be attributable to acquisitions of new product lines and new businesses. Future acquisitions, if successfully consummated, would likely create increased working capital requirements, which would likely precede by several months any material contribution of an acquisition to our net income. Our failure to manage growth or future acquisitions successfully could seriously harm our operating results. Also, acquisition costs could cause our operating results to vary significantly from quarter to quarter. Furthermore, our stockholders would be diluted if we financed the acquisitions by incurring convertible debt or issuing securities.

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

For fiscal 2017 and 2016, 27% and 24%, respectively, of our revenue was from customers located outside of the U.S. We believe that the revenue from the sale of our products and services outside the U.S. will continue to grow in the near future. We intend to expand our international operations to the extent that suitable opportunities become available. Our foreign operations and sales could be adversely affected as a result of:

- nationalization of private enterprises and assets;
- political or economic instability in certain countries and regions;
- differences in foreign laws, including increased difficulties in protecting intellectual property and uncertainty in enforcement of contract rights;
- the possibility that foreign governments may adopt regulations or take other actions that could directly or indirectly harm our business and growth strategy;
- credit risks;
- currency fluctuations;
- tariff and tax increases;
- export and import restrictions and restrictive regulations of foreign governments;

- shipping products during times of crisis or wars; and

- other risks inherent in foreign operations.

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

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

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

Recruiting and retaining qualified scientific and production personnel to perform and manage prototype, sample, and product manufacturing and business development personnel to conduct business development are critical to our success. In addition, our desired growth and expansion into areas and activities requiring additional expertise, such as clinical testing, government approvals, production, sales and marketing will require the addition of new management personnel and the development of additional expertise by existing management personnel. Because our industry is very competitive, we face significant challenges in attracting and retaining a qualified personnel base. Although we believe we have been, and will continue to be, able to attract and retain these personnel, we cannot assure you that we will continue to be able to successfully attract qualified personnel in the future. The failure to attract and retain these personnel or, alternatively, to develop this expertise internally would harm our business since our ability to conduct business development and manufacturing would be reduced or eliminated, resulting in lower revenues. We generally do not enter into employment agreements requiring our employees to continue in our employment for any period of time, with the exception of our Chief Executive Officer. See "—If we are unable to continue to retain the services of Dr. Hayward, we may not be able to continue our operations. "in this Item 1A.

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

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

Intellectual property litigation could harm our business, financial condition and results of operations.

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

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

are invalid, and we may not be able to do this. Proving invalidity, in particular, is difficult since it requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents.

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

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

Accidents related to hazardous materials could adversely affect our business.

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

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

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

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

We generally may be subject to claims made by and required to respond to litigation brought by customers, former employees, former officers and directors, former distributors and sales representatives, former consultants and vendors and service providers. We have faced such claims and litigation in the past and we cannot assure you that we will not be subject to claims in the future. In the event that a claim is successfully brought against us, considering our lack of material revenue and the losses our business has incurred for the period from our inception to September 30, 2017, this could result in a significant decrease in our liquidity or assets, which could result in the reduction or termination of our business.

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

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

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

A general weakening or decline in the global economy or a period of economic slowdown may have serious negative consequences for our business and operating results. Since our customers incorporate our products into a variety of consumer goods, the demand for our products is subject to worldwide economic conditions and their impact on levels of consumer spending. Some of the factors affecting consumer spending include general economic conditions, unemployment, consumer debt, reductions in net worth, residential real estate and mortgage markets, taxation, energy prices, interest rates, consumer confidence and other macroeconomic factors. During periods of economic weakness or uncertainty, demand for consumer goods incorporating our products may weaken, and current or potential customers may defer purchases of our products.

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

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

Risks Relating to Our Common Stock and Other Securities:

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

As of December 22, 2017, we had 30,112,057 shares of common stock issued and outstanding, outstanding options to purchase 5,333,227 shares of common stock and outstanding warrants to purchase 12,275,455 shares of common stock. The issuance of shares upon exercise of our outstanding options and warrants will cause immediate and substantial dilution to our stockholders. In addition, under our publicly traded warrants (including additional warrants sold privately that have registration rights), in the event of a “Fundamental Transaction” (as defined in the related warrant agreement, which generally includes any merger with another entity, the sale, transfer or other disposition of all or substantially all of our assets to another entity, or the acquisition by a person of more than 50% of our common stock), each warrant holder will have the right at any time prior to the consummation of the Fundamental Transaction to require us to repurchase the warrant for a purchase price in cash equal to the Black Scholes value (as calculated under the warrant agreement) of the then remaining unexercised portion of such warrant on the date of such Fundamental Transaction, which may materially adversely affect our financial condition and/or results of operations.

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

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

2015, our registered direct public offering (the “Registered Direct Offering”) and concurrent private placement, during November 2015, our private placements completed in November 2016 and June 2017 and our registered direct offering in December 2017 resulted in dilution to investors and future offerings of securities could result in further dilution to investors.

We may require additional financing in the future, which may not be available or, if available, may be on terms that cause a decline in the value of the shares of our common stock held by stockholders.

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

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

Our common stock and publicly traded warrants are listed on The NASDAQ Capital Market under the symbols "APDN" and "APDNW," respectively. For our common stock and publicly traded warrants to continue to be listed on The NASDAQ Capital Market, we must meet the current continued listing requirements. If we were unable to meet these requirements, our common stock and warrants could be delisted from The NASDAQ Capital Market. If our securities were to be delisted from The NASDAQ Capital Market, our securities could begin to trade on the Over-The-Counter Bulletin Board or on one of the markets operated by OTC Markets Group, including OTC Pink (formerly known as the "pink sheets"), as the case may be. In such event, our securities could once again be subject to the "penny stock" rules which among other things require brokers or dealers to approve investors' accounts, receive written agreements and determine investor suitability for transactions and disclose risks relating to investing in the penny stock market. Any such delisting of our securities could have an adverse effect on the market price of, and the efficiency of the trading market for our securities, not only in terms of the number of shares that can be bought and sold at a given price, but also through delays in the timing of transactions and less coverage of us by securities analysts, if any. Also, if in the future we were to determine that we need to seek additional equity capital, it could have an adverse effect on our ability to raise capital in the public or private equity markets.

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

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

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

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

Short selling is the practice of selling securities that the seller does not own but rather has borrowed or intends to borrow from a third party with the intention of buying identical securities at a later date to return to the lender. A short seller hopes to profit from a decline in the value of the securities between the sale of the borrowed securities and the purchase of the replacement shares, as the short seller expects to pay less in that purchase than it received in the sale. As it is therefore in the short seller's interest for the price of the stock to decline, some short sellers publish, or arrange for the publication of, opinions or characterizations regarding the relevant issuer, its business prospects and similar matters calculated to or which may create negative market momentum, which may permit them to obtain profits for themselves as a result of selling the stock short. Issuers whose securities have historically had limited trading volumes and/or have been susceptible to relatively high volatility levels can be particularly vulnerable to such short seller attacks. The publication of any such commentary regarding us in the future may bring about a temporary, or possibly long term, decline in the market price of our common stock. In the past, the publication of commentary regarding us by a disclosed short seller has been associated with the selling of shares of our common stock in the market on a large scale, resulting in a precipitous decline in the market price per share of our common stock. No assurances can be made that similar declines in the market price of our common stock will not occur in the future, in connection with such commentary by short sellers or otherwise.

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

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

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

- the expiration of any applicable contractual lock-up agreements;

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

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

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

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

- our ability to obtain additional funding;

- changes or developments in applicable laws or regulations;

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

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

- the trading volume of our common stock; and

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

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

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

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES.

Our corporate headquarters is located at the Long Island High Technology Incubator ("LIHTI"), which is located on the campus of Stony Brook University at 50 Health Sciences Drive, Stony Brook, NY 11790. The lease is for a 30,000 square foot building. The term of the lease commenced on June 15, 2013 and expired on May 31, 2016, with the option to extend the lease for two additional three-year periods. We have exercised our option to extend the lease for one additional three-year period, ending May 31, 2019. The base rent during the additional three-year period is $458,098 per annum. In addition to the office space, we also have 1,500 square feet of laboratory space. The term of the lease commenced on November 1, 2015 and expired on October 31, 2016, and was renewed through October 31, 2017. Effective November 20, 2017, we have renewed this lease for one additional year ending October 31, 2018. We set up a satellite testing facility in Ahmedabad, India during fiscal 2017. On November 17, 2017, we leased 1,108 square feet for a three-year term beginning November 1, 2017. The base rent is approximately $6,500 per annum.

ITEM 3. LEGAL PROCEEDINGS.

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

ITEM 4. MINE SAFETY DISCLOSURES.

Not applicable.

PART II

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

Market Information

Our common stock is listed on The NASDAQ Capital Market under the symbol “APDN”. Our warrants are listed on The NASDAQ Capital Market under the symbol “APDNW”. There is no certainty that the common stock and warrants will continue to be listed or that any liquidity exists for our stockholders, or warrant holders.

The following table sets forth the quarterly quotes of high and low prices for our common stock and warrants on The NASDAQ Capital Market during the fiscal years ended September 30, 2017 and 2016.:

	Fiscal 2017		Fiscal 2016	
Common Stock:	High	Low	High	Low
First Quarter	$3.15	$1.73	$9.70	$2.74
Second Quarter	$2.05	$1.40	$3.74	$2.46
Third Quarter	$1.94	$0.90	$3.50	$2.35
Fourth Quarter	$2.88	$1.55	$3.61	$2.70

	Fiscal 2017		Fiscal 2016	
Warrants:	High	Low	High	Low
First Quarter	$1.16	$0.35	$6.35	$0.91
Second Quarter	$0.55	$0.35	$2.35	$1.00
Third Quarter	$0.50	$0.22	$2.06	$0.94
Fourth Quarter	$1.04	$0.30	$1.29	$0.85

Holders

As of December 22, 2017, we had approximately 594 holders of record of our common stock and 3 holders of record of our publicly traded warrants. The number of record holders was determined from the records of our transfer agent

and does not include beneficial owners of common stock whose shares are held in the names of various security brokers, dealers, and registered clearing agencies. The transfer agent of our common stock and warrants is American Stock Transfer & Trust Company, 6201 15th Avenue, Brooklyn, New York 11219.

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.

ITEM 6. Selected Financial Data.

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

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

The following Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with our consolidated financial statements and the related notes appearing elsewhere in this Annual Report on Form 10-K. This discussion and analysis includes certain forward-looking statements that involve risks, uncertainties and assumptions. You should review the Risk Factors section of this Form 10-K for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by such forward-looking statements. See "Forward-Looking Information" at the beginning of this Form 10-K.

Introduction

Using biotechnology as a forensic foundation, we create unique security solutions addressing the challenges of modern commerce. Whether for supply chain security, brand protection or law enforcement applications, it is our goal to help establish secure flourishing environments that foster quality, integrity and success. With secure taggants, high-resolution DNA authentication, and comprehensive reporting, our DNA technologies are designed to deliver what we believe to be the greatest levels of security, deterrence and legal recourse strength. We are also engaged in the large-scale production of specific DNA sequences using the polymerase chain reaction ("PCR").

General

To date, the substantial portion of our revenues have been generated from sales of our SigNature molecular tags and SigNature T molecular tags, our principal supply chain security and product authentication solutions. We expect to continue to grow revenues from sales of our SigNature molecular tags, SigNature T molecular tags, DNAnet, digitalDNA, Beacon, SigNify, and CertainT offerings as well as from the large-scale production of specific DNA sequences using PCR as we work with companies and governments to secure supply chains and restore confidence to products and product labeling throughout the world. We have continued to incur expenses in expanding our business and increasing our personnel to meet current and anticipated future demand. We have limited sources of liquidity. Our products and services are offered in the United States, Europe and Asia. At the present time, we are focusing our efforts on textile and apparel, microcircuits and other electronics, cash-in-transit, consumer asset marking, printing and packaging businesses, agrochemicals and diagnostics and reagents. In the future, we plan to expand our focus to include pharmaceuticals, consumer products, food and beverage, and industrial materials,.

Critical Accounting Policies

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

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

The accounting policies identified as critical are as follows:

- Revenue recognition; and
- Equity based compensation;

Revenue Recognition

We recognize revenue in accordance with Accounting Standards Codification ("ASC") 605, Revenue Recognition ("ASC 605"). ASC 605 requires that four basic criteria must be met before revenue can be recognized: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred and/or service has been performed; (3) the selling price is fixed and determinable; and (4) collectability is reasonably assured. Determination of criteria (3) and (4) are based on management's judgments regarding the fixed nature of the selling prices of the products delivered or services provided and the collectability of those amounts. Provisions for allowances and other adjustments are provided for in the same period the related sales are recorded. We defer any revenue for which the product has not been delivered, service has not been provided, or is subject to refund until such time that we and the customer jointly determine that the product has been delivered, the service has been provided, or no refund will be required. At September 30, 2017 and 2016, we recorded total deferred revenue of $351,735 and $2,737,588, respectively.

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

Revenue for government contract awards, which supports our development efforts on specific projects, is recognized as milestones are achieved as per the contract. Revenue for firm fixed price government contract awards are recognized over the period of the contract. We recognized revenue of approximately $249,348 and $1,064,105, from these contract awards during the fiscal years ended September 30, 2017 and 2016, respectively.

The Company recognized the revenue under its memorandum of understanding ("MOU"), which expired on May 30, 2017, with LD Commodities Cotton LLC ("Dreyfus") when the product has been shipped, as there is no right of return under this arrangement and there is a commitment from their customer to purchase the marked cotton. The Company has evaluated the other indicators of gross and net revenue recognition, including whether or not the Company is the primary obligor and if it has general inventory risk. The Company did not have any general inventory risk and was not the primary obligor as it relates to the marketing portion of the cotton tagging fee. With respect to the Company's former mutual license agreement (the "Mutual License Agreement") with Himatsingka America Inc. (formerly known as Divatex Home Fashion, Inc.) ("Himatsingka"), the Company has evaluated all of the key gross and net revenue recognition indicators and has concluded that the circumstances as they relate to Himatsingka's portion of the tagging fee were more consistent with those key indicators that support net revenue reporting. In addition, the nature of some of the Company's cotton contracts includes extended payment terms that will result in a longer collection period and slower cash inflows.

On June 23, 2017, the Company entered into a new licensing agreement (the "Licensing Agreement") with Himatsingka, which replaces the terms of the Mutual License Agreement and its former MOU with Dreyfus. The Licensing Agreement terminates an earlier licensing agreement dated March 25, 2015 between Divatex Home Fashion, Inc. (a predecessor to Himatsingka) and the Company. Under the terms of the Licensing Agreement, Himatsingka is solely responsible for promoting, marketing and selling on a worldwide basis the Company's technology with respect to finished and unfinished cotton products. The Licensing Agreement grants Himatsingka an exclusive license to use the Company's technology in respect of cotton, subject to certain carve-outs including governmental users, non-commercial trade associations and others. The Licensing Agreement has a term that continues until June 23, 2042, except in the case of patents, in which case the term continues with respect to a patent until such patent is no longer in effect. The Company will no longer ship taggant to mark cotton pursuant to the terms of the MOU with Dreyfus. Instead, the Company will ship taggant to mark cotton to locations designated by Himatsingka, and Himatsingka will take possession of inventory upon shipment. The Licensing Agreement provides that Himatsingka will make payments for the use of the Company's taggant technology on a net 60 days basis (with the exception of the first delivery which was on a 180 day basis). In addition, Himatsingka will make royalty payments on a quarterly basis in arrears in the event the Company's technology is used on non-home products. Himatsingka is responsible for the inspection and compliance within the supply chain. Himatsingka is generally required to use the Company's technology during the term of the Licensing Agreement, subject, among other things, to their customers' requirements. As part of the Licensing Agreement, the Company will establish an independent testing laboratory in Ahmedabad, India. The Licensing Agreement includes customary mutual indemnification provisions.

The cotton ginning season in the United States takes place between September and March each year, therefore, revenues from these customer contracts may be seasonal.

Equity Based Compensation

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

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

Use of Estimates

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

Comparison of the Fiscal Year Ended September 30, 2017 to the Fiscal Year Ended September 30, 2016

Revenues

Product revenues

For the fiscal years ended September 30, 2017 and 2016, we generated $3,733,995 and $2,538,202 in revenues from product sales, respectively. The increase in product revenues of $1,195,793 or 47% for the fiscal year ended September 30, 2017 is attributable to an increase in revenue of approximately $1,420,000 in the textile industry for protecting cotton supply chains as well as the addition of new customers in the synthetic supply chains. Increases in the textile division were offset partially by decreases in revenue from DNA Production of $132,000.

Service revenues

For the fiscal years ended September 30, 2017 and 2016, we generated $1,017,265 and $1,648,225 in revenues from sales of services, respectively. The decrease in service revenues of $630,960 or 38% for the fiscal year ended September 30, 2017 is attributable to a decrease in the two government contract awards of approximately $1,064,000, of which one expired on July 14, 2016 and the other one in August 2016. The revenue decreases associated with these two government contracts were offset by a new government contract award which began during June 2017. Revenues under the new government award were approximately $249,000 during the fiscal year ended September 30, 2017. These decreases from the expiration of the two government awards during fiscal 2016 were further offset by an increase in revenues from development projects in industrial materials, textiles, and personal care during fiscal 2017.

Costs and Expenses

Cost of Revenues

Cost of revenues for the fiscal years ended September 30, 2017 and 2016 were $1,077,232 and $1,170,653, respectively. Cost of revenues as a percentage of product revenue were 29% and 46% for the fiscal years ended September 30, 2017 and 2016, respectively. This decrease in cost of revenues as a percentage of product revenues is due to increased sales to the textile industry which carry higher margins. Also, during the prior fiscal year, due to

lower product revenue, our production decreased, and, as a result, our fixed production costs, primarily comprised of payroll expenses and rent and utilities allocated to our production facilities, were not absorbed by product sales.

Selling, General and Administrative

Selling, general and administrative expenses for the fiscal year ended September 30, 2017 increased by $2,516,204 or 23% to $13,324,503 from $10,808,299 in the same period in 2016. The increase is primarily attributable to an increase in stock based compensation expense of approximately $1,218,000, primarily associated to grants to employees that vested immediately during fiscal 2017 whereas the grants to employees during fiscal 2016 have a four year vesting period. The increase is also attributable to an increase of approximately $1,106,000, including $673,000 of payroll costs, which were allocated to the two government development contract awards in the prior fiscal year being allocated to selling, general and administrative expenses in the current fiscal year due to the expiration of these two contracts. In addition there was an increase of approximately $307,000 in bad debt expense as a result of the write off of a portion of our accounts receivable.

Research and Development

Research and development expenses decreased by $1,418,475 or 38% for the fiscal year ended September 30, 2017 compared to the same period in 2016 to $2,282,362 from $3,700,837. The decrease is primarily attributable to development costs incurred in relation to the two government development contract awards, as well as costs related to the cooperative research and development agreement with the USDA for enhanced cotton genotyping during fiscal 2016.

Depreciation and Amortization

Depreciation and amortization increased by $180,809 or 26% compared to the same period in 2016 from $706,496 for the fiscal year ended September 30, 2016 to $887,305 for the fiscal year ended September 30, 2017.The increase is attributable to impairment of approximately $253,000 of internally developed software during the fiscal year ended September 30, 2017. This increase was offset by $69,000 of amortized customer purchase orders acquired from Vandalia and fulfilled by the Company during the fiscal year ended September 30, 2016.

Other (expense) income

Other (expense) income for the fiscal year ended September 30, 2017, decreased to expense of $35,625 from income of $23,879 in the same period of 2016. The increase in other expense was due to the return of escrow funds associated with the Vandalia Asset Purchase Agreement during the prior fiscal year ended September 30, 2016.

Net Loss

Net loss increased $679,788, or 6% to $12,855,767 for the fiscal year ended September 30, 2017 compared to $12,175,979 for the fiscal year ended September 30, 2016 due to the factors noted above.

Recent Accounting Pronouncements

See Note B, “Recent Accounting Principles,” to the accompanying consolidated financial statements for a description of accounting standards which may impact our consolidated financial statements in future reporting periods.

Liquidity and Capital Resources

Our liquidity needs consist of our working capital requirements and research and development expenditure funding. As of September 30, 2017, we had working capital of $4,945,304. For the fiscal year ended September 30, 2017, we had a net cash usage from operating activities of $7,479,184 consisting primarily of our loss of $12,855,767, net with

non-cash adjustments of $887,305 in depreciation and amortization charges, $3,257,305 for stock-based compensation, and $423,920 of bad debt expense. Additionally, we had a net decrease in operating assets of $2,888,154 and a net decrease in operating liabilities of $2,080,101. Cash used in investing activities was $145,436, for the purchase of property and equipment. Cash provided by financing activities was $6,105,127, which included net proceeds from the sale of common stock and warrants related to a private placement in November 2016 and the sale of common stock in a private placement during June 2017.

We have recurring net losses, which have resulted in an accumulated deficit of $236,673,155 as of September 30, 2017. We have incurred a net loss of $12,855,767 for the fiscal year ended September 30, 2017. At September 30, 2017, we had cash and cash equivalents of $2,959,781. Our current capital resources include cash and cash equivalents, accounts receivable and inventories. Historically, we have financed our operations principally from the sale of equity securities. As discussed in Note G, to the accompanying consolidated financial statements, on December 22, 2017, we closed on a securities purchase agreement with certain institutional investors for the purchase and sale of 2,735,000 shares of our common stock and warrants to purchase an aggregate of 2,735,000 shares of common stock in a registered direct offering with aggregate gross proceeds of $4,786,250 exclusive of warrant exercise proceeds. After deducting placement agent’s commissions and other estimated offering expenses total expected net proceeds are $4,200,000.

We expect to finance operations primarily through cash received from the November 2016 and June 2017 private placements, and the December 2017 registered direct offering, as well as collection of our accounts receivables. We estimate that we will have sufficient cash and cash equivalents to fund operations for the next twelve months from the date of filing of this annual report.

We may require additional funds to complete the continued development of our products, product manufacturing, and to fund expected additional losses from operations, until revenues are sufficient to cover our operating expenses. If revenues are not sufficient to cover our operating expenses, and if we are not successful in obtaining the necessary additional financing, we will most likely be forced to reduce operations.

We expect capital expenditures to be less than $400,000 in fiscal 2018. Our primary investments will be in laboratory equipment to support prototyping, manufacturing, our authentication services, and outside services for our detector and reader development. These capital expenditures include one-time set up costs associated with the establishment of our laboratory space located in India.

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

Recent Debt and Equity Financing Transactions

Fiscal 2017

On November 2, 2016, the Company entered into a securities purchase agreement with an institutional investor providing for the purchase of $5 million of common stock and warrants at a combined price of $2.20 per share of common stock and warrant (the “Private Placement”). In the Private Placement, the Company sold 2,272,727 shares of its common stock and warrants to purchase 2,272,727 shares of its common stock. The warrants have the same terms as the Company's existing publicly traded warrants (APDNW) with an exercise price of $3.50 per share and an expiration date of November 20, 2019. The offering closed on November 7, 2016.

The Company agreed to file a registration statement providing for the resale of these securities on Form S-3 by December 7, 2016. On December 6, 2016, the Company filed the Form S-3, which was declared effective by the SEC on December 13, 2016. Upon effectiveness of the registration statement, the common stock and warrants issued in the Private Placement became freely tradeable on The NASDAQ Capital Market under the symbols "APDN" and "APDNW", respectively.

The aggregate gross proceeds to the Company from the Private Placement were $5 million before deducting the placement agents' fee and other offering expenses. As a result of the placement agents’ fee and other offering expenses attributable to the Private Placement, the net proceeds were $4,319,863.

In connection with the closing of this Private Placement, as partial compensation, on November 7, 2016, the Company granted warrants to purchase an aggregate of 68,182 shares of its common stock to the Company's placement agents, Maxim Group LLC and Imperial Capital LLC (the “Placement Agent Warrants”) at an exercise price of $2.53 (115% of the public offering price), subject to adjustment as set forth therein (including for stock dividends and splits and certain other distributions and “Fundamental Transactions,” as defined therein). The Placement Agent Warrants will be

exercisable beginning six months following the closing date of the Private Placement and terminate at 5:00 P.M. (Eastern Standard Time) on November 7, 2021. In addition, the Placement Agent Warrants provide for cashless exercise, which the Placement Agents may elect if there is no effective registration statement registering the resale of the shares issuable upon exercise of the Placement Agent Warrants. The number of shares of common stock that may be acquired by the Placement Agents upon any exercise of the Placement Agent Warrants (or otherwise in respect hereof) shall be limited to the extent necessary to insure that, following such exercise, the total number of shares of common stock then beneficially owned by the Placement Agent and its Affiliates (as defined therein) and any other Persons whose beneficial ownership of common stock would be aggregated with the Placement Agent pursuant to the Securities Exchange Act of 1934, as amended (the "Exchange Act"), does not exceed 9.99% of the total number of issued and outstanding shares of common stock.

On June 28, 2017 the Company entered into subscription agreements for a private placement of its common stock,with a group of investors, including a strategic investor which is also a key customer and intellectual property licensee of the Company as well as all of the Company's executive officers and all members of the Board of Directors. As a result of the private placement, the Company to issued 1,025,574 shares of common stock at a price of $1.76 per share for total gross proceeds of $1,805,000. As part of the private placement, the Company's management and Board of Directors purchased 315,346 shares of common stock for gross proceeds of $555,000. The issuance of the Common Stock was exempt from the registration requirements of the Securities Act of 1933 pursuant to Section 4(a)(2) of such Securities Act and Regulation D promulgated thereunder and such Common Stock will therefore be restricted. Each investor gave representations that he, she or it was an "accredited investor" (as defined under Rule 501 of Regulation D) and that he, she or it is purchasing such securities without a present view toward a distribution of the securities. In addition, there was no general solicitation conducted in connection with the offer and sale of the securities.

Fiscal 2016

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

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

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

Subsequent Events

On December 22, 2017, we closed a securities purchase agreement with certain institutional investors for the purchase and sale of 2,735,000 shares of our common stock and warrants to purchase an aggregate of 2,735,000 shares of common stock in a registered direct offering with an aggregate gross proceeds of $4,786,250, at a combined purchase price of $1.75 per share. The warrants will be immediately exercisable at a price of $2.00 per share of common stock and will expire five years from the date of issuance.

After deducting placement agent fees and other estimated expenses related to the registered direct offering, we estimate the aggregate net proceeds to be approximately $4,200,000.

The warrants include an adjustment provision that, subject to certain exceptions, reduces their exercise price if the Company issues Common Stock or Common Stock equivalents at a price lower than the then-current exercise price of the Purchase Warrants, subject to a minimum exercise price of $0.44. The exercise price and number of the shares of our Common Stock issuable upon the exercise of the warrants will be subject to adjustment as set forth therein (including for stock dividends and splits, reverse stock split, recapitalization, reorganization or similar transaction).

In addition, if and only if there is no effective registration statement registering, or no current prospectus available for, the resale of the Warrants, the Purchasers may exercise the Purchase Warrants by means of a “cashless exercise.”

Product Research and Development

We anticipate spending approximately $2,800,000 for product research and development activities during the next twelve months.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements.

Inflation

The effect of inflation on our revenue and operating results was not significant during the fiscal years ended September 30, 2017 and 2016.

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

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

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

See pages F-1 through F-25 following the Exhibit Index.

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

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES.

Management Report on Internal Control over Financial Reporting

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including, our Chief Executive Officer, along with the Chief Financial Officer, on September 30, 2017, we conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) under the Exchange Act, as of September 30, 2017. Disclosure controls and procedures are those controls and procedures designed to provide reasonable assurance that the information required to be disclosed in our Exchange Act filings is (1) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and (2) accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of September 30, 2017, our disclosure controls and procedures were effective.

Management Report on Internal Control over Financial Reporting

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

Our management has conducted, with the participation of our CEO and CFO, an assessment, including testing of the effectiveness, of our internal control over financial reporting as of September 30, 2017. Management's assessment of internal control over financial reporting was based on assessment criteria established in the *2013 Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission

("COSO"). Based on such evaluation, management concluded that our internal control over financial reporting was effective as of September 30, 2017.

Changes in Internal Control over Financial Reporting

There were no changes, in our internal control over financial reporting during the most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION.

Not applicable.

Part III

ITEM 10.	**DIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERNANCE**
ITEM 11.	**EXECUTIVE COMPENSATION**
ITEM 12.	**SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**
ITEM 13.	**CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**
ITEM 14.	**PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The information called for by Items 10, 11, 12, 13 and 14 will be included in our definitive proxy statement for the 2018 Annual Meeting of Stockholders, which will be filed with the SEC within 120 days after September 30, 2017. The relevant portions of such definitive proxy statement are incorporated herein by reference.

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, 2017 and 2016 and for the years ended September 30, 2017 and 2016, and the notes thereto, together with the report of our independent registered public accounting firm on those consolidated financial statements, are hereby filed as part of this report beginning on page F-1.

2. Financial Statement Schedules

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

3. Exhibits

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

SIGNATURES

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

APPLIED DNA SCIENCES, INC.

Date: December 28, 2017 /s/ James A. Hayward
James A. Hayward
President and Chief Executive Officer

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

Name	**Position**	**Date**
/s/ **JAMES A. HAYWARD** James A. Hayward	Chief Executive Officer (*Principal Executive Officer*), President, Chairman of the Board of Directors and Director	December 28, 2017
/s/ **BETH M. JANTZEN** Beth M. Jantzen	Chief Financial Officer (*Principal Financial Officer and* *Principal Accounting Officer*)	December 28, 2017
/s/ **JOHN BITZER, III** John Bitzer, III	Director	December 28, 2017
/s/ **ROBERT CATELL** Robert Catell	Director	December 28, 2017
/s/ **JOSEPH D. CECCOLI** Joseph D. Ceccoli	Director	December 28, 2017
/s/ **CHARLES S. RYAN** Charles S. Ryan	Director	December 28, 2017

/s/ **YACOV A. SHAMASH** Yacov A. Shamash	Director	December 28, 2017
/s/ **SANFORD R. SIMON** Sanford R. Simon	Director	December 28, 2017
/s/ **ELIZABETH M. SCHMALZ FERGUSON** Betsy M. Schmalz Ferguson	Director	December 28, 2017

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.

		Incorporated by Reference				Filed or Furnished Herewith
Exhibit Number	**Description**	**Form**	**Exhibit**	**File No.**	**Date Filed**	
3.1	Certificate of Incorporation	8-K	3.1	002-90539	1/16/2009	
3.2	Certificate of Amendment of Certificate of Incorporation	8-K	3.1	002-90539	6/30/2010	
3.3	Second Certificate of Amendment of Certificate of Incorporation	8-K	3.1	002-90539	1/30/2012	
3.4	Third Certificate of Amendment of Certificate of Incorporation	8-K	3.1	002-90539	10/29/2014	
3.5	Form of Certificate of Designations of the Series A Convertible Preferred Stock	8-K	3.1	002-90539	11/29/2012	
3.6	Form of Certificate of Designations of the Series B Convertible Preferred Stock	8-K	3.1	002-90539	7/22/2013	
3.7	By-Laws	8-K	3.2	002-90539	1/16/2009	
4.1	Form of Underwriter's Warrant to be issued to Maxim Group LLC	S-1/A	10.26	333-199121	10/30/2014	
4.2	Form of Senior Indenture, to be entered into between Applied DNA Sciences, Inc. and the Trustee designated therein	S-3	4.1	333-202432	3/2/2015	
4.3	Form of Subordinated Indenture, to be entered into between Applied DNA Sciences, Inc. and the Trustee designated therein	S-3	4.3	333-202432	3/2/2015	
4.4	Form of Underwriter's Warrant	8-K	4.1	001-36745	3/27/2015	
4.5	Form of Purchase Warrant	8-K	4.1	001-36745	11/23/2015	
4.6	Form of Placement Agent Warrant issued to Maxim Group LLC	8-K	4.2	001-36745	11/23/2015	
4.7	Form of Placement Agent Warrant issued to Maxim Group LLC and Imperial Capital, LLC	8-K	4.1	001-36745	11/2/2016	
10.1†	Applied DNA Sciences, Inc. 2005 Incentive Stock Plan and form of employee stock option agreement thereunder, as amended and restated as of January 21, 2015	10-K	10.1	001-36745	12/14/2015	
10.2*	Joint Development and Marketing Agreement, dated April 18, 2007 by and between Applied DNA Sciences and International Imaging Materials, Inc.	8-K	10.1	002-90539	4/24/2007	

10.3	Form of Subscription Agreement, dated July 15, 2011, by and among Applied DNA Sciences, Inc. and the investors named on the signature pages thereto	10-K	10.28	002-90539	12/9/2011
10.4	Form of Warrant, dated July 15, 2011, issued to the investors named on the signature pages	10-K	10.29	002-90539	12/9/2011
10.5†	Employment Agreement, dated July 1, 2016, between James A. Hayward and Applied DNA Sciences, Inc.	8-K	5.02	001-36745	8/2/2016
10.6*	Exclusive Sales Agreement dated November 1, 2011 by and between Applied DNA Sciences, Inc. and Nissha Printing Co., Ltd.	10-Q	10.1	002-90539	2/14/2012
10.7	Software Distribution Agreement, dated as of January 25, 2012, by and between Applied DNA Sciences, Inc. and DivineRune, Inc.	10-Q	10.1	002-90539	5/15/2012
10.8	Form of Subscription Agreement dated June 21, 2012, by and among Applied DNA Sciences, Inc. and the investor named on the signature page thereto	10-K	10.37	002-90539	12/20/2012
10.9†	Form of Indemnification Agreement dated as of September 7, 2012, by and between Applied DNA Sciences, Inc. and each of its directors and executive officers	8-K	10.1	002-90539	9/13/2012
10.10	Asset Purchase Agreement dated May 10, 2013, between Applied DNA Sciences, Inc. and RedWeb Technologies Limited	10-Q	10.1	002-90539	8/13/2013
10.11	Agreement of Lease dated June 14, 2013, between Applied DNA Sciences, Inc. and Long Island High Technology Incubator, Inc.	10-Q	10.2	002-90539	8/13/2013
10.12*	Term sheet for Mutual Cooperation with Borealis AG dated March 31, 2014	8-K/A	10.1	002-90539	7/22/2014
10.13	Form of Subscription Agreement dated June 3, 2014	8-K	10.1	002-90539	6/6/2014
10.14	Form of Warrant dated June 3, 2014	8-K	10.2	002-90539	6/6/2014
10.15	Form of Award/Contract issued by U.S. Missile Defense Agency dated July 14, 2014	8-K	10.1	002-90539	7/18/2014
10.16	Form of Promissory Note	8-K	10.1	002-90539	9/17/2014
10.17	Form of Award/Contract awarded by Office of Secretary of Defense on behalf of Defense Logistics Agency dated August 28, 2014	8-K/A	10.1	002-90539	9/8/2014

		Incorporated by Reference				Filed or Furnished Herewith
Exhibit Number	**Description**	**Form**	**Exhibit**	**File No.**	**Date Filed**	
10.18	Warrant Repurchase Option Agreement dated October 28, 2014 between Applied DNA Sciences, Inc. and Crede CG III, Ltd.	S-1/A	10.28	333-199121	10/30/2014	
10.19	Letter Agreement dated November 11, 2014 between Applied DNA Sciences, Inc. and James A. Hayward regarding Exchange of 12.5% Promissory Note	S-1/A	10.29	333-199121	11/12/2014	
10.20	Underwriting agreement between Applied DNA Sciences, Inc. and Maxim Group LLC dated November 17, 2014	S-1/A	1.1	333-199121	11/12/2014	
10.21	Form of Warrant Agreement between Applied DNA Sciences, Inc. and American Stock Transfer & Trust Company, LLC, as warrant agent	S-1/A	10.25	002-90539	11/12/14	
10.22	First Amendment to Warrant Agreement dated April 1, 2015 between Applied DNA Sciences, Inc. and American Stock Transfer & Trust Company, LLC as warrant agent	8-K	4.1	001-36745	4/1/2015	
10.23*	Mutual License Agreement dated March 25, 2015 between Applied DNA Sciences, Inc. and Divatex Home Fashion, Inc.	10-Q	10.1	001-36745	5/11/2015	
10.24	Underwriting Agreement dated March 27, 2015, between Applied DNA Sciences, Inc. and Maxim Group LLC, as representative of the underwriters named on Schedule A thereto.	8-K	1.1	001-36745	3/27/2015	
10.25**	Asset Purchase Agreement dated September 11, 2015 between Applied DNA Sciences, Inc. and Vandalia Research, Inc.	8-K	2.1	001-36745	9/17/2015	
10.26	Placement Agency Agreement by and between Applied DNA Sciences, Inc. and Maxim Group LLC, dated November 23, 2015	8-K/A	10.1	001-36745	11/23/2015	
10.27	Form of Securities Purchase Agreement	8-K/A	10.2	001-36745	11/23/2015	
10.28	Placement Agency Agreement between Maxim Group LLC, Imperial Capital, LLC and Applied DNA Sciences, Inc. dated November 2, 2016	8-K	10.1	001-36745	11/2/2016	
10.29	Securities Purchase Agreement dated November 2, 2016	8-K	10.2	001-36745	11/2/2016	
10.30	Registration Rights Agreement dated November 2, 2016	8-K	10.3	001-36745	11/2/2016	
10.31	Second Amendment to Warrant Agreement dated November 2, 2016	8-K	10.4	001-36745	11/2/2016	
10.32	Form of Subscription Agreement	8-K	10.1	001-36745	6/28/2017	
10.33		8-K	10.1	001-36745	12-20-2017	

	Placement Agency Agreement dated December 20, 2017					
10.34	Securities Purchase Agreement dated December 20, 2017	8-K	10.2	001-36745	12-20-2017	
10.35	Form of Warrant	8-K	4.1	001-36745	12-20-2017	
21.1	Subsidiaries of Applied DNA Sciences, Inc.	S-1/A	21.1	333-199121	10/30/2014	
23.1	Consent of Marcum LLP					Filed
101 INS	XBRL Instance Document					Filed
101 SCH	XBRL Taxonomy Extension Schema Document					Filed
101 CAL	XBRL Taxonomy Extension Calculation Linkbase Document					Filed
101 DEF	XBRL Taxonomy Extension Definitions Linkbase Document					Filed
101 LAB	XBRL Taxonomy Extension Labels Linkbase Document					Filed
101 PRE	XBRL Taxonomy Extension Presentation Linkbase Document					Filed

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

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

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

APPLIED DNA SCIENCES, INC.

INDEX TO FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

Applied DNA Sciences, Inc.

We have audited the accompanying consolidated balance sheets of Applied DNA Sciences, Inc. (the "Company") as of September 30, 2017 and 2016, and the related consolidated statements of operations, stockholders' equity and cash flows for the years then ended. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Applied DNA Sciences, Inc., as of September 30, 2017 and 2016, and the consolidated results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

/s/ Marcum llp

Marcum llp
Melville, NY
December 28,
2017

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APPLIED DNA SCIENCES, INC.
CONSOLIDATED BALANCE SHEETS
SEPTEMBER 30, 2017 AND 2016

	September 30, 2017	2016
ASSETS		
Current assets:		
Cash and cash equivalents	$2,959,781	$4,479,274
Accounts receivable, net of allowance of $10,000 and $32,965 at September 30, 2017 and 2016, respectively	2,587,969	6,374,895
Inventories	326,468	297,759
Prepaid expenses and other current assets	366,954	200,006
Total current assets	6,241,172	11,351,934
Property and equipment, net	523,688	792,499
Other assets:		
Long term accounts receivables	-	1,535,000
Deposits	61,626	61,126
Deferred offering costs	-	13,986
Goodwill	285,386	285,386
Intangible assets, net	1,042,076	1,525,900
Total Assets	$8,153,948	$15,565,831
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued liabilities	$944,133	$2,247,341
Deferred revenue	351,735	1,837,588
Total current liabilities	1,295,868	4,084,929
Long term accounts payable	-	215,500
Long term deferred revenue	-	900,000
Total liabilities	1,295,868	5,200,429
Commitments and contingencies		
Stockholders' Equity:		
Preferred stock, par value $0.001 per share; 10,000,000 shares authorized; -0- shares issued and outstanding	-	-

Series A Preferred stock, par value $0.001 per share; 10,000,000 shares authorized; -0- issued and outstanding	-	-
Series B Preferred stock, par value $0.001 per share; 10,000,000 shares authorized; -0- issued and outstanding	-	-
Common stock, par value $0.001 per share; 500,000,000 shares authorized; 27,377,057 and 24,078,756 shares issued and outstanding as of September 30, 2017 and 2016, respectively	27,377	24,079
Additional paid in capital	243,503,858	234,158,711
Accumulated deficit	(236,673,155)	(223,817,388)
Total stockholders' equity	6,858,080	10,365,402
Total Liabilities and Stockholders' Equity	$8,153,948	$15,565,831

See the accompanying notes to the consolidated financial statements

APPLIED DNA SCIENCES, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
YEARS ENDED SEPTEMBER 30, 2017 AND 2016

	2017	2016
Revenues:		
Product revenues	$3,733,995	$2,538,202
Service revenues	1,017,265	1,648,225
Total revenues	4,751,260	4,186,427
Cost of revenues	1,077,232	1,170,653
Operating expenses:		
Selling, general and administrative	13,324,503	10,808,299
Research and development	2,282,362	3,700,837
Depreciation and amortization	887,305	706,496
Total operating expenses	16,494,170	15,215,632
LOSS FROM OPERATIONS	(12,820,142)	(12,199,858)
Other (expense) income:		
Interest income (expense), net	2,763	11,004
Other (expense) income, net	(38,388)	12,875
Loss before provision for income taxes	(12,855,767)	(12,175,979)
Provision for income taxes	-	-
NET LOSS	$(12,855,767)	$(12,175,979)
Net loss per share-basic and diluted	$(0.49)	$(0.51)
Weighted average shares outstanding-basic and diluted	26,378,991	23,693,096

See the accompanying notes to the consolidated financial statements

APPLIED DNA SCIENCES, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
YEARS ENDED SEPTEMBER 30, 2017 and 2016

	Common Shares	Common Stock Amount	Additional Paid in Capital	Accumulated Deficit	Total
Balance, October 1, 2015	21,504,578	$21,505	$224,186,760	$(211,641,409)	$12,566,856
Exercise of warrants and options cashlessly	48,918	49	(49)	—	—
Common stock issued for consulting services	24,000	24	78,106	—	78,130
Shares issued in underwritten public offerings, net of offering costs	2,500,000	2,500	7,850,655	—	7,853,155
Exercise of warrants for cash	1,260	1	4,409	—	4,410
Stock based compensation expense	—	—	2,038,830	—	2,038,830
Net loss	—	—	—	(12,175,979)	(12,175,979)
Balance, September 30, 2016	24,078,756	$24,079	$234,158,711	$(223,817,388)	$10,365,402
Common stock issued in private placement, net of offering costs	1,025,574	1,025	1,770,252	—	1,771,277
Common stock and warrants issued in private placement, net of offering costs	2,272,727	2,273	4,317,590	—	4,319,863
Stock based compensation expense	—	—	3,257,305	—	3,257,305
Net loss	—	—	—	(12,855,767)	(12,855,767)
Balance, September 30, 2017	27,377,057	$27,377	$243,503,858	$(236,673,155)	$6,858,080

See the accompanying notes to the consolidated financial statements

APPLIED DNA SCIENCES, INC.
CONSOLIDATED STATEMENT OF CASH FLOWS
YEARS ENDED SEPTEMBER 30, 2017 AND 2016

	2017	2016
Cash flows from operating activities:		
Net loss	$(12,855,767)	$(12,175,979)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	633,328	706,496
Impairment expense	253,977	-
Stock based compensation expense	3,257,305	2,038,830
Loss on sale of property and equipment	-	5,520
Common stock issued for consulting services	-	78,130
Security deposit write-off	-	10,000
Provision for bad debts	423,920	116,825
Change in operating assets and liabilities:		
Accounts receivable	3,084,311	(2,597,203)
Inventories	(28,709)	16,209
Prepaid expenses, other current assets and deposits	(167,448)	(297,759)
Accounts payable and accrued liabilities	(610,504)	(253,333)
Deferred revenue	(1,469,597)	2,455,537
Net cash used in operating activities	(7,479,184)	(9,896,727)
Cash flows from investing activities:		
Proceeds from sale of property and equipment	-	5,500
Purchases of intangible assets	-	(112,403)
Purchases of property and equipment	(145,436)	(672,859)
Net cash used in investing activities	(145,436)	(779,762)
Cash flows from financing activities:		
Net proceeds from sale of common stock and warrants	6,105,127	7,853,155
Proceeds from exercise of warrants	-	4,410
Deferred offering costs	-	(13,986)
Purchase and cancellation of previously issued warrants	-	-
Net cash provided by financing activities	6,105,127	7,843,579
Net decrease in cash and cash equivalents	(1,519,493)	(2,832,910)
Cash and cash equivalents at beginning of year	4,479,274	7,312,184
Cash and cash equivalents at end of year	$2,959,781	$4,479,274
Supplemental Disclosures of Cash Flow Information:		
Cash paid during year for interest	$-	$-
Cash paid during year for income taxes	$-	$-

Non-cash investing and financing transactions:		
Property and equipment acquired, and included in accounts payable	$-	$10,767
Common stock issued for cashless exercise of options	$-	$49
Reclassification of deferred offering costs to additional paid in capital	$13,986	$-

See the accompanying notes to the consolidated financial statements

APPLIED DNA SCIENCES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
SEPTEMBER 30, 2017

NOTE A – LIQUIDITY AND MANAGEMENT'S PLAN

The Company has recurring net losses, which have resulted in an accumulated deficit of $236,673,155 as of September 30, 2017. The Company incurred a net loss of $12,855,767 and generated negative operating cash flow of $7,479,184 for the fiscal year ended September 30, 2017. At September 30, 2017 the Company had cash and cash equivalents of $2,959,781 and working capital of $4,945,304. The Company's current capital resources include cash and cash equivalents, accounts receivable and inventories. Historically, the Company has financed its operations principally from the sale of equity securities. As discussed in Note G, on December 22, 2017, the Company entered into a securities purchase agreement with certain institutional investors providing for the purchase and sale of 2,735,000 shares of the Company's common stock and warrants to purchase an aggregate of 2,735,000 shares of common stock in a registered direct offering with an aggregate gross proceeds of $4,786,250, at a combined purchase price of $1.75 per share for total expected net proceeds of approximately $4,200,000, after placement agent fees and other estimated offering costs.

The Company expects to finance operations and capital expenditures primarily through cash received from June 2017 private placements and the December 2017 registered direct offering, and the collection of its accounts receivables. The Company estimates that it will have sufficient cash and cash equivalents to fund operations for the next twelve months from the date of filing of the annual report.

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

NOTE B – SUMMARY OF ACCOUNTING POLICIES

Business and Basis of Presentation

On September 16, 2002, the Company was incorporated under the laws of the State of Nevada. Effective December 17, 2008, the Company reincorporated from the State of Nevada to the State of Delaware. The Company is principally

devoted to developing and marketing plant-based or other DNA technology solutions in the United States, Europe and Asia. To date, the Company has produced limited recurring revenues from its products and services; it has incurred expenses and has sustained losses. Consequently, its operations are subject to all the risks inherent in the establishment of a biotechnology company.

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries, APDN (B.V.I.) Inc., Applied DNA Sciences Europe Limited, and Applied DNA Sciences India Private Limited which currently have no operations or activity. Applied DNA Sciences India Private Limited was incorporated in India on June 22, 2017. Significant inter-company transactions and balances have been eliminated in consolidation. To facilitate comparison of information across periods, certain reclassifications have been made to prior year amounts to conform to the current year's presentation.

Use of Estimates

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

APPLIED DNA SCIENCES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
SEPTEMBER 30, 2017

NOTE B – SUMMARY OF ACCOUNTING POLICIES, continued

Revenue Recognition

The Company recognizes revenue in accordance with Accounting Standards Codification (“ASC”) 605, Revenue Recognition (“ASC 605”). ASC 605 requires that four basic criteria must be met before revenue can be recognized: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred and/or service has been performed; (3) the selling price is fixed and determinable; and (4) collectability is reasonably assured. Determination of criteria (3) and (4) are based on management’s judgments regarding the fixed nature of the selling prices of the products delivered or services provided and the collectability of those amounts. Provisions for allowances and other adjustments are provided for in the same period the related sales are recorded. The Company defers any revenue for which the product has not been delivered, service has not been provided, or is subject to refund until such time that the Company and the customer jointly determine that the product has been delivered, the service has been provided, or no refund will be required. At September 30, 2017 and 2016, the Company recorded total deferred revenue of $351,735 and $2,737,588, respectively.

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

Revenue for government contract awards, which supports the Company’s development efforts on specific projects, is recognized as firm fixed price contract awards and are recognized over the period of the contract. The Company recognized revenue of approximately $249,348 and $1,064,105 from these contract awards during the fiscal years ended September 30, 2017 and 2016, respectively.

The Company recognized the revenue under its memorandum of understanding ("MOU"), which expired on May 30, 2017, with LD Commodities Cotton LLC ("Dreyfus") when the product has been shipped, as there is no right of return under this arrangement and there is a commitment from their customer to purchase the marked cotton. The Company

has evaluated the other indicators of gross and net revenue recognition, including whether or not the Company is the primary obligor and if it has general inventory risk. The Company did not have any general inventory risk and was not the primary obligor as it relates to the marketing portion of the cotton tagging fee. With respect to the Company's former Mutual License Agreement with Himatsingka America Inc. (formerly known as Divatex Home Fashion, Inc.) ("Himatsingka"), the Company has evaluated all of the key gross and net revenue recognition indicators and has concluded that the circumstances as they relate to Himatsingka's portion of the tagging fee are more consistent with those key indicators that support net revenue reporting. In addition, the nature of some of the Company's cotton contracts includes extended payment terms that will result in a longer collection period and slower cash inflows.

On June 23, 2017, the Company entered into a new licensing agreement (the "Licensing Agreement") with Himatsingka, which replaces the terms of the Mutual License Agreement and its former MOU with Dreyfus. Under the terms of the Licensing Agreement, Himatsingka is solely responsible for promoting, marketing and selling on a worldwide basis the Company's technology with respect to finished and unfinished cotton products. The Licensing Agreement grants Himatsingka an exclusive license to use the Company's technology in respect of cotton, subject to certain carve-outs including governmental users, non-commercial trade associations and others. The Licensing Agreement has a term that continues until June 23, 2042, except in the case of patents, in which case the term continues with respect to a patent until such patent is no longer in effect. As a result, the Company will no longer ship taggant to mark cotton pursuant to the terms of the MOU with Dreyfus. Instead, the Company will ship taggant to mark cotton to locations designated by Himatsingka, and Himatsingka will take possession of inventory upon shipment. The Licensing Agreement provides that Himatsingka will make payments for the use of the Company's taggant technology on a net 60 days basis (with the exception of the first delivery which was on a 180 day basis). In addition, Himatsingka will make royalty payments on a quarterly basis in arrears in the event the Company's technology is used on non-home products, as defined in the Licensing Agreement. Himatsingka is responsible for the inspection and compliance within the supply chain. Himatsingka is generally required to use the Company's technology during the term of the Licensing Agreement, subject, among other things, to their customers' requirements. As part of the Licensing Agreement, the Company will establish an independent testing laboratory in Ahmedabad, India. The Licensing Agreement includes customary mutual indemnification provisions. The cotton ginning season in the United States takes place between September and March each year, therefore, revenues from these customer contracts may be seasonal.

Cash Equivalents

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

Accounts Receivable

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

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. The Company classifies receivable amounts as current or long-term based on expected payment and records long-term accounts receivable when the collection period is expected to be greater than one year.

At September 30, 2017 and 2016, the Company has an allowance for doubtful accounts of $10,000 and $32,965, respectively. The Company writes-off receivables that are deemed uncollectible.

APPLIED DNA SCIENCES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
SEPTEMBER 30, 2017

NOTE B – SUMMARY OF ACCOUNTING POLICIES, continued

Inventories

Inventories, which consist primarily of raw materials and finished goods, are stated at the lower of cost or market, which cost determined by using the first-in, first-out (FIFO) method.

Income Taxes

The Company accounts for income taxes in accordance with ASC 740, Income Taxes ("ASC 740-10") which requires the recognition of deferred tax liabilities and assets for the expected future tax consequences of events that have been included in the financial statement or tax returns. Under this method, deferred tax liabilities and assets are determined based on the difference between financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. Temporary differences between taxable income reported for financial reporting purposes and income tax purposes include, but not limited to, accounting for intangibles, equity based compensation and depreciation and amortization. The Company evaluates the recoverability of deferred tax assets and establishes a valuation allowance when it is more likely than not that some portion or all of the deferred tax asset will not be realized. During the fiscal years ended September 30, 2017 and 2016, the Company incurred losses from operations. Based upon these results and the trends in the Company's performance projected for fiscal year 2018, it is more likely than not that the Company will not realize any benefit from the deferred tax assets recorded by the Company in previous periods. Management makes judgments as to the interpretation of tax laws that might be challenged upon an audit and cause changes to previous estimates of tax liability. In management's opinion, adequate provisions for income taxes have been made for all years. If actual taxable income by tax jurisdiction varies from estimates, additional allowances or reversals of reserves may be necessary. The Company has identified its federal tax return and its state tax return in New York as "major" tax jurisdictions. Based on the Company's evaluation, it has been concluded that there are no significant uncertain tax positions requiring recognition in the Company's consolidated financial statements.

The Company believes that its income tax positions and deductions will be sustained on audit and does not anticipate any adjustments that will result in a material change to its financial position. It is the Company's policy to accrue interest and penalties on unrecognized tax benefits as components of income tax provision. The Company did not

have any accrued interest or penalties as of September 30, 2017 and 2016. Tax years 2013 through 2016 remain subject to future examination by the applicable taxing authorities.

Property and Equipment

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

	September 30,	
	2017	2016
Computer equipment	$85,413	$70,134
Lab equipment	1,770,407	1,651,400
Furniture	44,592	44,592
Leasehold improvements	289,573	289,573
Total	2,189,985	2,055,699
Accumulated depreciation	1,666,297	1,263,200
Property and equipment, net	$523,688	$792,499

Depreciation expense for the fiscal years ended September 30, 2017 and 2016 were $403,482 and $452,212, respectively.

APPLIED DNA SCIENCES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
SEPTEMBER 30, 2017

NOTE B – SUMMARY OF ACCOUNTING POLICIES, continued

Impairment of Long-Lived Assets

The Company evaluates its long lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Events relating to recoverability may include significant unfavorable changes in business conditions, recurring losses, or a forecasted inability to achieve break-even operating results over an extended period. The Company evaluates the recoverability of long-lived assets based upon forecasted undiscounted cash flows. Should impairment in value be indicated, the carrying value of long-lived assets will be adjusted, based on estimates of future discounted cash flows resulting from the use and ultimate disposition of the asset. For the fiscal year ended September 30, 2017, the Company recorded impairment expense of $253,977, as determined by non-recurring Level 3 inputs, related to capitalized software which is included in depreciation and amortization expense which is included in the consolidated statements of operations.

Net Loss per Share

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

For the fiscal years ended September 30, 2017 and 2016, common stock equivalent shares are excluded from the computation of the diluted loss per share as their effect would be anti-dilutive.

Securities that could potentially dilute basic net income per share in the future that were not included in the computation of diluted net loss per share because to do so would have been antidilutive for the fiscal years ended September 30, 2017 and 2016 are as follows:

	2017	2016
Warrants	9,540,455	7,208,060
Employee options	5,333,227	4,403,234
	14,873,682	11,611,294

Stock Based Compensation

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

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

Concentrations

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

The Company's revenues earned from sale of products and services for the fiscal years ended September 30, 2017 include 29%, 26%, 13% and 10%, respectively from four customers of the Company's total revenues. These customers accounted for approximately 97% of the Company's total accounts receivable at September 30, 2017. At September 30, 2017, one customer accounted for an aggregate of 80% of the Company's total accounts receivable.

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APPLIED DNA SCIENCES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
SEPTEMBER 30, 2017

NOTE B – SUMMARY OF ACCOUNTING POLICIES, continued

The Company's revenues earned from sale of products and services for the fiscal years ended September 30, 2016 include 33%, 29% and 13%, respectively, from three customers of the Company's total revenues. These three customers accounted for approximately 20% of the Company's total accounts receivable at September 30, 2016. At September 30, 2016, one customer accounted for an aggregate of 78% of the Company's total accounts receivable.

Research and Development

The Company accounts for research and development costs in accordance with the ASC 730, Research and Development ("ASC 730"). Under ASC 730, all research and development costs must be charged to expense as incurred. Accordingly, internal research and development costs are expensed as incurred. Third-party research and development costs are expensed when the contracted work has been performed or as milestone results have been achieved. Company-sponsored research and development costs related to both present and future products are expensed in the period incurred. During the fiscal years ended September 30, 2017 and 2016, the Company incurred research and development expenses of $2,282,362 and $3,700,837, respectively.

Advertising

The Company follows the policy of charging the costs of advertising to expense as incurred. The Company charged to operations $315,266 and $245,281, as advertising costs for the fiscal years ended September 30, 2017 and 2016, respectively.

Goodwill and Other Intangible Assets

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

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

The Company evaluates goodwill for impairment at least annually. The Company qualitatively and quantitatively determines whether, more likely than not, the fair value exceeds the carrying amount of a reporting unit. There are numerous assumptions and estimates underlying the quantitative assessments including future earnings, long-term strategies, and the Company's annual planning and forecasts. If these planned initiatives do not accomplish the targeted objectives, the assumptions and estimates underlying the quantitative assessments could be adversely affected and have a material effect upon the Company's financial condition and results of operations. As of September 30, 2017 and 2016 goodwill and other intangible impairment assessments indicated that there was no impairment.

Internally Developed Software

Internally developed software products, consist of capitalized costs associated with the development of computer software to be sold, leased or otherwise marketed. Software development costs associated with new products are expensed as incurred until technological feasibility, as defined in FASB ASC Topic 985-20, has been established. Costs incurred thereafter are capitalized until the product is made generally available. The stage during the Company's development process for a new product or new release at which technological feasibility requirements are established affects the amount of costs capitalized. Annual amortization of internally developed software products is the greater of the amount computed using the ratio that current gross revenues for a product bear to the total of current and anticipated future gross revenues for that product or the straight-line method over the remaining estimated economic life of the software product, generally estimated to be 5 years from the date the product became available for general release to customers. The Company generally recognizes amortization expense for capitalized software costs using the straight-line method. Internally developed software products are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable and its carrying amount exceeds its fair value. As of September 30, 2017 the Company recorded $253,977 of impairment expense relating to the capitalized software project which the Company does not forecast will have significant cash inflows.

Fair Value of Financial Instruments

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

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

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APPLIED DNA SCIENCES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
SEPTEMBER 30, 2017

NOTE B – SUMMARY OF ACCOUNTING POLICIES, continued

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

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

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

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

Recently Issued Accounting Principles

In July 2017, the Financial Accounting Standards Board ("FASB") issued a two-part Accounting Standards Update ("ASU") No. 2017-11, I. Accounting for Certain Financial Instruments With Down Round Features and II. Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests With a Scope Exception ("ASU 2017-11"). ASU 2017-11 amends guidance in FASB ASC 260, Earnings Per Share, FASB ASC 480, Distinguishing Liabilities from Equity, and FASB ASC 815, Derivatives and Hedging. The amendments in Part I of ASU 2017-11 change the classification analysis of certain equity-linked financial instruments (or embedded features) with down round features. The amendments in Part II of ASU 2017-11 re-characterize the indefinite deferral of certain provisions of Topic 480 that now are presented as pending content in the Codification, to a scope exception. Those amendments do not have an accounting effect. ASU 2017-11 is effective for public business entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted. The Company is currently evaluating the impact of adopting this guidance.

In May 2017, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Updated (“ASU”) 2017-09, Compensation – “Stock Compensation (Topic 718): Scope of Modification Accounting”, which provides guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting in Topic 718. This pronouncement is effective for annual reporting periods and interim periods within those annual periods beginning after December 15, 2017. Early adoption is permitted. The Company does not expect the adoption of ASU 2016-09 to have a material impact on our consolidated financial statements and related disclosures.

In January 2017, the FASB ASU 2017-01, “Business Combinations (Topic 805): Clarifying the Definition of a Business” (“ASU 2017-01”). The amendments in this update are to clarify the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The definition of a business affects many areas of accounting including acquisitions, disposals, goodwill, and consolidation. The guidance is effective for annual periods beginning after December 15, 2017, including interim periods within those periods. The Company is currently evaluating the impact of adopting this guidance.

In January 2017, the FASB issued ASU No. 2017-04, “Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment” (“ASU 2017-04”). The purpose of the amendment is to simplify how an entity is required to test goodwill for impairment by eliminating Step 2 from the goodwill impairment test. Step 2 measures a goodwill impairment loss by comparing the implied fair value of a reporting unit’s goodwill with the carrying amount of that goodwill. For public entities, the amendments in ASU 2017-04 are effective for interim and annual reporting periods beginning after December 15, 2019. The Company is currently assessing the impact of ASU 2017-04 on its consolidated financial statements.

In March 2016, the FASB issued ASU 2016-09, "Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting." The objective of this update is to simplify several aspects of the accounting for employee share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. This ASU is effective for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. Early adoption is permitted. The Company does not believe this will have a material impact on its consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)." The objective of this update is to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. This ASU is effective for fiscal years beginning after December 15, 2018, including interim periods within those annual periods and is to be applied utilizing a modified retrospective approach. The Company is currently evaluating the new guidance to determine the impact it may have on its consolidated financial statements.

APPLIED DNA SCIENCES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
SEPTEMBER 30, 2017

NOTE B – SUMMARY OF ACCOUNTING POLICIES, continued

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

In July 2015, the FASB issued ASU 2015-11, “Simplifying the Measurement of Inventory (Topic 330)” ("ASU 2015-11"). ASU 2015-11 simplifies the accounting for the valuation of all inventory not accounted for using the last-in, first-out ("LIFO") method by prescribing that inventory be valued at the lower of cost and net realizable value. ASU 2015-11 is effective for financial statements issued for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2016 on a prospective basis. The Company does not expect the adoption of ASU 2015-11 to have a material effect on its consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09, “Revenue from Contracts with Customers” (“ASU 2014-09”), which was subsequently modified in August 2015 by ASU No. 2015-14, Revenue from Contracts with Customers: Deferral of the Effective Date. This guidance will be effective for fiscal years (and interim reporting periods within those years) beginning after December 15, 2017. The core principle of ASU No. 2014-09 is that companies should recognize revenue when the transfer of promised goods or services to customers occurs in an amount that reflects what the company expects to receive. It requires additional disclosures to describe the nature, amount, timing and uncertainty of revenue and cash flows from contracts with customers. In 2016 and 2017, the FASB issued additional ASUs that clarify the implementation guidance on principal versus agent considerations (ASU 2016-08), on identifying performance obligations and licensing (ASU 2016-10), and on narrow-scope improvements and practical expedients (ASU 2016-12), revenue recognition criteria and other technical corrections (ASU 2016-20) as well as clarifying the scope of asset derecognition guidance and accounting for partial sales of nonfinancial assets (ASU 2017-05). The Company is in the process of evaluating the provisions of these ASU’s and assessing the potential effect on the Company’s consolidated financial position or results of operations. However, based upon the revenue recognized for the current contracts in place as of September 30, 2017, we expect to identify similar performance obligations under these ASUs as compared with the deliverables and separate units of accounting previously identified. The Company is also evaluating the transition guidance under ASU 2014-09 to determine if it will apply the full retrospective or modified retrospective approach.

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APPLIED DNA SCIENCES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
SEPTEMBER 30, 2017

NOTE C – INVENTORIES

Inventories consist of the following at September 30, 2017 and 2016:

	2017	2016
Raw materials	$193,069	$100,420
Finished goods	133,399	197,339
Total	$326,468	$297,759

NOTE D – INTANGIBLE ASSETS

Intangible assets at September 30, 2017 and 2016 are as follows:

	2017	2016
Internally developed software (5-year useful life)	$157,221	$411,199
Customer relationships (10-year useful life)	621,000	621,000
Intellectual property (5-15 years)	917,350	917,350
	1,695,571	1,949,549
Less:		
Accumulated amortization	653,495	423,649
Intangible assets, net	$1,042,076	$1,525,900

Total amortization expense charged to operations for the fiscal years ended September 30, 2017 and 2016 were $483,823 and $254,284, respectively. Impairment expense of $253,977 relating to internally developed software was included in amortization expense included in depreciation and amortization within the consolidated statements of operations for the fiscal year ended September 30, 2017.

APPLIED DNA SCIENCES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
SEPTEMBER 30, 2017

NOTE E – INTANGIBLE ASSETS, continued

The following table presents the estimated amortization expense of the intangible assets for each of the five succeeding years as of September 30, 2017:

	Amount
2018	$139,641
2019	91,967
2020	114,448
2021	114,448
2022	114,448
Thereafter	467,124
Total	$1,042,076

NOTE F – ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

Accounts payable and accrued liabilities at September 30, 2017 and 2016 are as follows:

	2017	2016
Accounts payable	$382,984	$1,530,258
Accrued salaries payable	446,012	678,982
Other accrued expenses	115,137	38,101
Total	$944,133	$2,247,341

NOTE G – CAPITAL STOCK

Common Stock Transactions during and subsequent to the Fiscal Year Ended September 30, 2017:

On November 2, 2016, the Company entered into a securities purchase agreement with an institutional investor providing for the purchase of $5 million of common stock and warrants at a combined price of $2.20 per share of common stock and warrant (the "Private Placement"). In the Private Placement, the Company sold 2,272,727 shares of its common stock and warrants to purchase 2,272,727 shares of its common stock. The warrants have the same terms as the Company's existing publicly traded warrants (APDNW) with an exercise price of $3.50 per share and an expiration date of November 20, 2019. The offering closed on November 7, 2016.

The Company filed a registration statement providing for the resale of these securities on Form S-3 by December 7, 2016. Upon effectiveness of the registration statement, it is expected that the common stock and warrants issued in the Private Placement will be freely tradeable on The NASDAQ Capital Market under the symbols "APDN" and "APDNW", respectively.

The aggregate gross proceeds to the Company from the Private Placement were $5 million before deducting the placement agents' fee and other offering expenses.

In connection with the closing of this Private Placement, as partial compensation, on November 7, 2016, the Company granted warrants to purchase an aggregate of 68,182 shares of its common stock to the Company's placement agents, Maxim Group LLC and Imperial Capital LLC (the "Placement Agent Warrants") at an exercise price of $2.53 (115% of the public offering price), subject to adjustment as set forth therein (including for stock dividends and splits and certain other distributions and "Fundamental Transactions," as defined therein). The Placement Agent Warrants will be exercisable beginning six months following the closing date of the Private Placement and terminate at 5:00 P.M. (Eastern Standard Time) on November 7, 2021. In addition, the Placement Agent Warrants provide for cashless exercise, which the Placement Agents may elect if there is no effective registration statement registering the resale of the shares issuable upon exercise of the Placement Agent Warrants. The number of shares of common stock that may be acquired by the Placement Agents upon any exercise of the Placement Agent Warrants (or otherwise in respect hereof) shall be limited to the extent necessary to insure that, following such exercise, the total number of shares of common stock then beneficially owned by the Placement Agent and its Affiliates (as defined therein) and any other Persons whose beneficial ownership of common stock would be aggregated with the Placement Agent pursuant to the Exchange Act, does not exceed 9.99% of the total number of issued and outstanding shares of common stock.

On June 28, 2017 the Company entered into subscription agreements for a private placement of its common stock, with a group of investors, including a strategic investor which is also a key customer and intellectual property licensee of the Company as well as all of the Company's executive officers and all members of the Board of Directors (the "June Private Placement"). As a result of the June Private Placement, the Company issued 1,025,574 shares of common stock at a price of $1.76 per share for total gross proceeds of $1,805,000. As part of the June Private Placement, the

Company's management and Board of Directors purchased 315,346 shares of common stock for gross proceeds of $555,000. The issuance of the Common Stock was exempt from the registration requirements of the Securities Act of 1933 pursuant to Section 4(a)(2) of such Securities Act and Regulation D promulgated thereunder and such Common Stock therefore is restricted. Each investor gave representations that he, she or it was an "accredited investor" (as defined under Rule 501 of Regulation D) and that he, she or it is purchasing such securities without a present view toward a distribution of the securities. In addition, there was no general solicitation conducted in connection with the offer and sale of the securities.

On December 22, 2017, the Company entered into a securities purchase agreement with certain institutional investors for the purchase and sale of 2,735,000 shares of our common stock and warrants to purchase an aggregate of 2,735,000 shares of common stock in a registered direct offering with aggregate gross proceeds of $4,786,250, at a combined purchase price of $1.75 per share. The warrants will be immediately exercisable at a price of $2.00 per share of common stock and will expire five years from the date of issuance.

After deducting placement agent fees and other estimated expenses related to the registered direct offering, the company estimates the aggregate net proceeds to be approximately $4,200,000.

The warrants will be exercisable for five years from the Initial Exercise Date, but not thereafter. The Purchase Warrants include an adjustment provision that, subject to certain exceptions, reduces their exercise price if the Company issues Common Stock or Common Stock equivalents at a price lower than the then-current exercise price of the Purchase Warrants, subject to a minimum exercise price of $0.44. The exercise price and number of the shares of our Common Stock issuable upon the exercise of the warrants will be subject to adjustment as set forth therein (including for stock dividends and splits, reverse stock split, recapitalization, reorganization or similar transaction).

In addition, if and only if there is no effective registration statement registering, or no current prospectus available for, the resale of the Purchase Warrants, the Purchasers may exercise the Purchase Warrants by means of a "cashless exercise."

APPLIED DNA SCIENCES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
SEPTEMBER 30, 2017

NOTE G – CAPITAL STOCK, continued

Common Stock Transactions during the Fiscal Year Ended September 30, 2016:

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

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

During the fiscal year ended September 30, 2016, the Company granted 24,000 shares of common stock to consultants for a total expense of approximately $78,130 pursuant to the Company’s 2005 Incentive Stock Plan (the “Incentive Plan”).

APPLIED DNA SCIENCES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
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NOTE H– STOCK OPTIONS AND WARRANTS

Warrants

The following table summarizes the changes in warrants outstanding. These warrants were granted in lieu of cash compensation for services performed or financing expenses in connection with the sales of the Company's common stock.

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

	Number of Shares	Weighted Average Exercise Price Per Share
Balance at October 1, 2016	7,208,060	$ 3.64
Granted	2,340,909	3.47
Exercised	(-)	(-)
Cancelled or expired	(8,514)	(2.64)
Balance, September 30, 2017	9,540,455	$ 3.60

Stock Options

In 2005, the Board of Directors and the holders of a majority of the outstanding shares of common stock approved the Incentive Plan. In 2007, 2008, 2012 and 2015, the Board of Directors and holders of a majority of the outstanding shares of common stock approved various increases in the number of shares of common stock that can be issued as stock awards and stock options thereunder to an aggregate of 8,333,333 shares and the number of shares of common stock that can be covered by awards made to any participant in any calendar year to 833,334 shares. The Incentive Plan's expiration date is January 25, 2025.

The Incentive Plan is designed to retain directors, executives, and selected employees and consultants by rewarding them for making contributions to our success with an award of options to purchase shares of common stock. As of September 30, 2017, a total of 275,752 shares have been issued and options to purchase 5,855,795 shares have been granted under the Incentive Plan.

APPLIED DNA SCIENCES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
SEPTEMBER 30, 2017

NOTE H– STOCK OPTIONS AND WARRANTS, continued

Stock Options, continued

Transactions involving stock options issued are summarized as follows:

	Number of Shares	Weighted Average Exercise Price Per Share	Aggregate Intrinsic Value	Weighted Average Contractual Life (years)
Outstanding at October 1, 2016	4,403,234	$ 4.08		
Granted	1,099,844	2.28		
Exercised	-	-		
Cancelled or expired	(169,851)	4.17		
Outstanding at September 30, 2017	5,333,227	$ 3.71		
Vested at September 30, 2017	3,884,600	3.91	$ 0	4.09
Non-vested at September 30, 2017	1,448,627		$ 14,646	7.38

The aggregate intrinsic value for options exercised during the fiscal years ended September 30, 2017 and 2016 was zero and $50,110.

For the fiscal year ended September 30, 2017, the Company issued 1,099,844 (including award modifications of 119,182 options) options to employees, consultants, members of the strategic advisory board and non-employee board of director members. Included in these grants was 280,000 options granted to executives and 5,000 performance based options issued to a consultant. These performance based options vest when a certain performance condition is met by the consultant.

For the fiscal year ended September 30, 2016, the Company issued an aggregate of 1,115,941 options to employees, non-employee board of director members, members of the strategic advisory board and consultants. Included in these grants was 160,000 options granted to executives and 500,000 performance based options granted to an employee

during May 2016. The performance based options vest in tranches as certain performance conditions are met by the employee. None of these performance based options were vested as of September 30, 2017.

The fair value of options granted during the fiscal years ended September 30, 2017 and 2016 was determined using the Black Scholes Option Pricing Model. For the purposes of the valuation model, the Company used the simplified method for determining the granted options expected lives. The simplified method is used since the Company does not have adequate historical data to utilize in calculating the expected term of options. The fair value for options granted was calculated using the following weighted average assumptions:

	2017	2016
Stock price	$2.11	$3.05
Exercise price	$2.31	$2.93
Expected term	5.38	7.89
Dividend yield	-	-
Volatility	111 %	135 %
Risk free rate	2.0 %	1.8 %

The Company recorded $3,257,305 and $2,038,830 as stock compensation expense within selling, general and administrative for fiscal years ended September 30, 2017 and 2016, respectively. Included in this amount is $89,951 and $37,342 for the fiscal years ended September 30, 2017 and 2016, respectively for employee stock option modifications. These modifications extended the term of the option for an employee and nonemployee board of director members in fiscal 2017 and extended the terms of the options for a former employee in fiscal 2016. As of September 30, 2017, unrecorded compensation cost related to non-vested awards was $2,036,222, which is expected to be recognized over a weighted average period of approximately 3.67 years. The weighted average grant date fair value per share for options granted during the fiscal years ended September 30, 2017 and 2016 was $1.58 and $2.84, respectively.

APPLIED DNA SCIENCES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
SEPTEMBER 30, 2017

NOTE I– INCOME TAXES

The income tax provision (benefit) for the fiscal years ended September 30, 2017 and 2016 consists of the following:

	2017	2016
Federal:		
Current	$-	-
Deferred	(4,303,000)	(3,780,000)
	(4,303,000)	(3,780,000)
State and local:		
Current	-	-
Deferred	(376,000)	(1,302,000)
	(376,000)	(1,302,000)
Change in valuation allowance	4,679,000	5,082,000
Income tax provision (benefit)	$-	-

The provision for income taxes differs from the amount of income tax determined by applying the applicable U.S statutory rate to losses before income tax expense for the years ended September 30, 2017 and 2016 as follows:

	2017	2016
Statutory federal income tax rate	34.00 %	34.00 %
Statutory state and local income tax rate (1%, as of September 30, 2017 and 2016), net of federal benefit	1.62 %	7.72 %
Stock based compensation	(2.65)%	(2.33)%
Other permanent differences	(0.03)%	0.72 %
Effect of change in deferred tax rate	2.37 %	2.01 %
Adjustment of prior years' NOLs	0.38 %	0.41 %
Adjustment to depreciation and amortization	-	1.09 %
Adjustment to stock based compensation	-	(2.43)%
Adjustment to state tax credits	0.70 %	0.55 %
Change in valuation allowance	(36.39)%	(41.74)%

Effective tax rate	0.00 %	0.00 %

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

	September 30, 2017	2016
Deferred tax assets (liabilities):		
Stock based compensation	$2,836,000	$2,025,000
Depreciation and amortization	500,000	351,000
Amortization of debt discount	16,311,000	16,269,000
Net operating loss carry forward	16,143,000	12,713,000
Tax credits	521,000	221,000
Other	52,000	105,000
Less: valuation allowance	(36,363,000)	(31,684,000)
Net deferred tax asset	$-	$-

APPLIED DNA SCIENCES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
SEPTEMBER 30, 2017

NOTE I– INCOME TAXES, continued

As of September 30, 2017, the Company has approximately $43,440,000 of Federal and $57,896,000 of State net operating loss "NOL" carryforwards available which begin to expire after 2022. Pursuant to Internal Revenue Code Section 382, the Company's ability to utilize the NOLs is subject to certain limitations due to changes in stock ownership in prior years. The annual limitation ranges between $786,000 and $1,103,000 and any unused amounts can be carried forward to subsequent years.

The Company has provided a full valuation allowance against all of the net deferred tax assets based on management's determination that it is more likely than not that the net deferred tax assets will not be realized in the future. The valuation allowance increased by $4,679,000.

The Company has Federal research and development credits of approximately $381,000 that will expire after 2034. The Company also has state investment tax credits of $140,000 that will expire after 2029.

NOTE J – COMMITMENTS AND CONTINGENCIES

Operating leases

The Company leases office space under an operating lease in Stony Brook, New York for its corporate headquarters. The lease is for a 30,000 square foot building. The term of the lease commenced on June 15, 2013 and expired on May 31, 2016, with the option to extend the lease for two additional three-year periods. The Company has exercised its option to extend the lease for one additional three-year period ending May 31, 2019. The base rent during the additional three-year period is $458,098 per annum. In addition to the office space, the Company also has 1,500 square feet of laboratory space. The term of the lease commenced on November 1, 2015 and expired on October 31, 2017. Effective November 20, 2017, the Company renewed this lease for one additional year, ending October 31, 2018. The Company set up a satellite testing facility in Ahmedabad, India during fiscal 2017. On November 17, 2017, it leased 1,108 square feet for a three-year term beginning November 1, 2017. The base rent is approximately $6,500 per annum.

Total rent expense for the fiscal years ended September 30, 2017 and 2016 were $552,240 and $490,745, respectively.

Future minimum rental payments (excluding real estate tax and maintenance costs) as of September 30, 2017 are as follows:

For the fiscal year ending September 30,	
2018	528,123
2019	316,457
2020	7,104
2021	595
Total	$852,279

Employment and Consulting Agreements

Employment agreements

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

Dr. Hayward's employment agreement provides that Dr. Hayward will be the Company's CEO, and will continue to serve on the Company's Board of Directors. On July 28, 2016, a new employment agreement was entered into with the Chief Executive Officer effective July 1, 2016. The initial term is from July 1, 2016 through June 30, 2017, with automatic one-year renewal periods. As of June 30, 2017, the employment contract renewed for an additional year. Under the new agreement, Dr. Hayward will be eligible for a special cash incentive bonus of up to $800,000, $300,000 of which is payable if and when annual revenue reaches $8 million and $100,000 of which would be payable for each $2 million of annual revenue in excess of $8 million. Pursuant to the contract, Dr. Hayward's annual salary is $400,000. The Board of Directors, acting in its discretion, may grant annual bonuses to Dr. Hayward. Dr. Hayward will be entitled to certain benefits and perquisites and will be eligible to participate in retirement, welfare and incentive plans available to the Company's other employees.

APPLIED DNA SCIENCES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
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NOTE J– COMMITMENTS AND CONTINGENCIES, continued

The agreement with Dr. Hayward also provides that if he is terminated before the end of the initial or a renewal term by us without cause or if Dr. Hayward terminates his employment for good reason, then, in addition to previously earned and unpaid salary, bonus and benefits, and subject to the delivery of a general release and continuing compliance with restrictive covenants, Dr. Hayward will be entitled to receive a pro rata portion of the greater of either (X) the annual bonus he would have received if employment had continued through the end of the year of termination or (Y) the prior year's bonus; salary continuation payments for two years following termination equal to the greater of (i) three times base salary or (ii) two times base salary plus bonus; company-paid COBRA continuation coverage for 18 months post-termination; continuing life insurance benefits (if any) for two years; and extended exercisability of outstanding vested options (for three years from termination date or, if earlier, the expiration of the fixed option term). If termination of employment as described above occurs within six months before or two years after a change in control of the Company, then, in addition to the above payments and benefits, all of Dr. Hayward's outstanding options and other equity incentive awards will become fully vested and Dr. Hayward will receive a lump sum payment of the amounts that would otherwise be paid as salary continuation. In general, a change in control will include a 30% or more change in ownership of the Company.

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

Effective May 7, 2016, the Chief Executive Officer's annual salary was voluntarily reduced by $100,000. Effective May 20, 2017, the Chief Executive's annual salary was voluntarily reduced by an additional $50,000. Accordingly, his current annual base salary as of September 30, 2017 is $250,000.

Litigation

From time to time, the Company may become involved in various lawsuits and legal proceedings which arise in the ordinary course of business. When the Company is aware of a claim or potential claim, it assesses the likelihood of any loss or exposure. If it is probable that a loss will result and the amount of the loss can be reasonably estimated, the Company will record a liability for the loss. In addition to the estimated loss, the recorded liability includes probable

and estimable legal costs associated with the claim or potential claim. Litigation is subject to inherent uncertainties, and an adverse result in these or other matters may arise from time to time that may harm the Company's business. There is no pending litigation involving the Company at this time.

NOTE K– GEOGRAPHIC AREA INFORMATION

Net revenues by geographic location of customers are as follows:

	Year Ended September 30,	
	2017	2016
United States	$ 3,485,691	$ 3,177,792
Europe	1,055,125	876,790
Asia and other	210,444	131,845
Total	$ 4,751,260	$ 4,186,427