APPLIED DNA SCIENCES INC
Form S-1
October 02, 2014
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As filed with the Securities and Exchange Commission on October 2, 2014
Registration No.

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

FORM S-1
registration statement under
the securities act of 1933

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

Delaware	**7380**	**59-2262718**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

50 Health Sciences Drive
Stony Brook, New York 11790
(631) 240-8800
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)
James A. Hayward, Ph.D., Sc.D.
Chairman, Chief Executive Officer and President
Applied DNA Sciences, Inc.
50 Health Sciences Drive
Stony Brook, New York 11790
(631) 240-8801
(Name, address, including zip code, and telephone number, including area code, of agent for service)
With copies to:

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Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement is declared effective.
If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

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

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

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Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price (1) (2)	Amount of Registration Fee
Common Stock (3)	$ 13,800,000	$ 1,603.56
Warrants to purchase Common Stock	— (4)	— (5)
Common Stock issuable upon exercise of Warrants (3) (6)	$ 17,250,000	$ 2,004.45
Total Registration Fee	$ 31,050,000	$ 3,608.01

(1)

- Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended (the "Securities Act"), on the basis of the maximum aggregate offering price of all of the securities to be registered.

(2)

- Includes shares of common stock and warrants to purchase shares of common stock that may be sold pursuant to the exercise of a 45-day option granted to the underwriters to cover over-allotments, if any.

(3)

- Pursuant to Rule 416 under the Securities Act, the securities being registered hereunder include such indeterminate number of additional shares of common stock as may be issued after the date hereof as a result of stock splits, stock dividends or similar transactions.

(4)

- The warrants to be issued to investors hereunder are included in the price of the common stock above.

(5)

- No separate registration fee is required pursuant to Rule 457(g) promulgated under the Securities Act.

(6)

- Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act. The warrants are exercisable at a per share exercise price equal to 125% of the public offering price. The proposed maximum aggregate public offering price of the warrants is $17,250,000, which is equal to 125% of $13,800,000.

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until this Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

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The information in this Prospectus is not complete and may be changed. A registration statement relating to these securities has been filed with the Securities and Exchange Commission. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS SUBJECT TO COMPLETION, DATED OCTOBER 2, 2014

PROSPECTUS

APPLIED DNA SCIENCES, INC.

$12,000,000 OF SHARES OF COMMON STOCK AND

WARRANTS TO PURCHASE SHARES OF COMMON STOCK

We are offering $12,000,000 of shares of common stock and warrants to purchase shares of common stock in a firm commitment underwritten public offering. One share of common stock is being sold together with a warrant, with each warrant being immediately exercisable for share of common stock at an exercise price of $ per share and expiring 5 years after the issuance date.

Our shares of common stock are currently quoted on the OTCQB marketplace, operated by OTC Markets Group, under the symbol “APDN”. We have applied to have our common stock listed on either The NASDAQ Capital Market or the NYSE MKT under the symbol “APDN”. In addition, we intend to apply to list our warrants on either The NASDAQ Capital Market or the NYSE MKT under the symbol “APDNW.” No assurance can be given that our applications will be approved. On October 1, 2014, the last reported sale price of our common stock on the OTCQB was $0.09 per share.

On August 28, 2014, our stockholders approved a reverse split of our common stock, in a ratio to be determined by our Board of Directors, of not less than 1-for-40 nor more than 1-for-60. We intend to effectuate the reverse split of our common stock in a ratio to be determined by our Board of Directors prior to consummation of this offering.

The purchase of the securities offered through this prospectus involves a high degree of risk. You should consider carefully the risk factors beginning on page 8 of this prospectus before purchasing any of the shares offered by this prospectus. Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

	Per Share	Per Warrant	Total
Public offering price	$	$	$
Underwriting discounts and commissions (1)	$	$	$
Proceeds, before expenses, to us (3)	$	$	$

(1)

- We have agreed to issue warrants to the underwriter and to reimburse the underwriter for expenses incurred by it in an amount not to exceed $100,000. We refer you to “Underwriting” beginning on page 77 of this prospectus for additional information regarding total underwriter compensation.

(2)

- We estimate the total expenses of this offering will be approximately $. We refer you to “Underwriting” for additional information.

The underwriter expects to deliver the securities against payment in New York, New York on , 2014. We have granted the underwriter the option for a period of 45 days to sell up to an additional $1,800,000 shares of common

stock and/or additional warrants to purchase shares of common stock at the public offering price, less underwriting discounts and commission, to cover overallotments, if any.

Maxim Group LLC

The date of this prospectus is , 2014.

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You should rely only on the information contained in this prospectus and any applicable prospectus supplement. We have not authorized anyone to provide you with different or additional information. If anyone provides you with different or inconsistent information, you should not rely on it. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of securities described in this prospectus. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus or any prospectus supplement, as well as information we have previously filed with the Securities and Exchange Commission, is accurate as of the date on the front of those documents only. Our business, financial condition, results of operations and prospects may have changed since those dates.

Until [ ], 2014 (___ days after the date of this prospectus), all dealers that effect transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

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ABOUT THIS PROSPECTUS

The following summary highlights selected information contained in this prospectus. This summary is not complete and does not contain all of the information that you should consider before investing in our securities. Before making an investment decision, you should read the entire prospectus carefully, including the "risk factors" section, the financial statements and other information included in this prospectus. In this prospectus "Applied DNA," "we," "us" and "our" refer to Applied DNA Sciences, Inc. and its subsidiaries.

Our Company

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

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

SigNature DNA, SigNature ® T DNA, fiberTyping ®, DNANet ® and digitalDNA ®, our principal anti-counterfeiting and product authentication solutions and our Counterfeit Prevention Authentication Program can be used in numerous industries, including microcircuits and other electronics, cash-in-transit (transport and storage of banknotes), homeland security, textiles and apparel, identity cards and other secure documents, law enforcement, industrial materials, pharmaceuticals, wine, and luxury consumer goods.

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

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

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

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

Summary Risks

Before you invest in our stock, you should carefully consider all the information in this prospectus, including matters set forth in the "Risk Factors" section beginning on page 8 of this prospectus. We believe that the following are some of the major risks and uncertainties that may affect us:

- We have a short operating history, a relatively new business model, and have not produced significant revenues, which makes it difficult to evaluate our future prospects and increases the risk that we will not be successful;
- We have a history of operating losses which may continue, and which may harm our ability to obtain financing and continue our operations;
- We will require additional financing which may require the issuance of additional shares which would dilute the ownership held by our stockholders;
- Our operating results could be adversely affected by a reduction in business with our customers that supply parts to the Defense Logistics Agency;
- If we are unable to obtain additional financing our business operations may be harmed or discontinued, and if we do obtain additional financing our stockholders may suffer substantial dilution;
- General economic conditions may adversely affect our business, operating results and financial condition;
-

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

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

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

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

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

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

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

- Intellectual property litigation could harm our business; and

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

Corporate Information

Our principal offices are located at 50 Health Sciences Drive, Stony Brook, New York 11790, and our telephone number is (631) 240-8800. We are a Delaware corporation, which was initially formed in 1983 under the laws of the State of Florida as Datalink Systems, Inc. In 1998, we reincorporated in Nevada, and in 2002, we changed our name to our current name, Applied DNA Sciences, Inc. In December 2008, we completed our reincorporation from Nevada to the State of Delaware. We maintain a website at www.adnas.com. The information contained on that website is not deemed to be a part of this prospectus.

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

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SUMMARY OF THE OFFERING

Securities offered:

$12,000,000 of shares of our common stock, together with warrants to purchase shares of our common stock at the exercise price of $ per share. The warrants will be immediately exercisable and will expire 5 years after the issuance date.

Common stock outstanding before the offering (1):

836,157,272 shares

Common stock to be outstanding after the offering (1) (2):

_____ shares (_____ shares if the warrants being offered hereby are exercised in full).

Underwriter's Over-Allotment Option:

The Underwriting Agreement provides that we will grant to the underwriter an option, exercisable within 45 days after the closing of this offering, to purchase up to an additional 15% of the total number of common stock and warrants to be offered by us pursuant to this offering, solely for the purpose of covering over-allotments, if any.

Underwriter's Warrants:

The Underwriting Agreement provides that we will issue to the underwriter share purchase warrants covering a number of shares of common stock equal to 4% of the total number of shares being sold in the offering, including the over-allotments, if any.

Use of Proceeds:

We intend to use a portion of the net proceeds from this offering for the following purposes:

Proceeds:		
Gross Proceeds	$	12,000,000
Fees and Expenses		(1,360,500)
Net Proceeds	$	10,639,500
Uses:		
Working Capital and Repurchase of Warrants	$	8,100,000
Business Development		1,539,500
Research and Development		1,000,000
Total Uses	$	10,639,500

OTCQB Symbol:

APDN

Listing and Proposed Symbol:

We have applied to list our common stock on the NASDAQ Capital Market or NYSE MKT under the symbol "APDN." We intend to apply to list our warrants on The NASDAQ Capital Market or NYSE MKT under the symbol "APDNW."

Risk Factors:

Investing in our securities involves substantial risks. You should carefully review and consider the "Risk Factors" section of this prospectus beginning on page 8 and the other information in this prospectus for a discussion of the factors you should consider before you decide to invest in this offering.

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Reverse Split:
On August 28, 2014, our stockholders approved a reverse split of our common stock, in a ratio to be determined by our Board of Directors, of not less than 1-for-40 nor more than 1-for-60. We intend to effectuate the reverse split of our common stock in a ratio to be determined by our Board of Directors prior to consummation of this offering. All option, share and per share information in this prospectus does not give effect to the proposed reverse stock split.

(1)

- The number of shares of our common stock outstanding excludes the following:

•

- 230,749,013 shares of common stock issuable upon exercise of outstanding stock options and warrants, at a weighted average exercise price of $0.0997 per share;

•

- Assuming the over-allotment option is fully exercised, shares of common stock issuable upon exercise underwriter warrants.

•

- the effect of the proposed reverse stock split described above.

(2)

- The total number of shares of our common stock outstanding after this offering is based on 836,157,272 shares outstanding as of September 30, 2014. Except as otherwise indicated herein, all information in this prospectus assumes the underwriter does not exercise the over-allotment option.

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SUMMARY CONSOLIDATED FINANCIAL DATA

The summary consolidated financial data presented below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the related notes that are included elsewhere in this prospectus. We have derived the summary consolidated financial data for the nine month periods ended June 30, 2014 and 2013, and as of June 30, 2014, from our unaudited condensed consolidated financial statements that are included elsewhere in this prospectus. We have derived the summary consolidated financial data for the years ended September 30, 2013, 2012 and 2011, and as of September 30, 2013, 2012 and 2011, from our audited consolidated financial statements that are included elsewhere in this prospectus. The summary consolidated statements of operations data for the years ended September 30, 2010 and 2009 and the summary consolidated balance sheet data as of September 30, 2010 and 2009 were derived from our audited consolidated financial statements which are not included in this prospectus. The results of operations for the nine months ended June 30, 2014 are not necessarily indicative of the results to be expected for the full year ending September 30, 2014.

Consolidated Statements of Operations Data

	Years Ended September 30,					Nine Months Ended Jun	
	2013	2012	2011	2010	2009	2014	20
es:	$2,036,222	$1,854,694	$968,848	$519,844	$295,162	$2,075,698	$1,307,
ng							
es:							
general	11,198,505	7,615,734	8,388,873	7,189,020	6,637,672	10,093,631	8,516,
trative							
h and	692,480	432,669	268,876	75,961	135,405	1,085,416	509,13
ment							
ation	321,074	313,940	367,556	371,914	418,128	325,448	105,10
ation							
perating	12,212,059	8,362,343	9,025,305	7,636,895	7,191,205	11,504,495	9,130,
es							
FROM	(10,175,837)	(6,507,649)	(8,056,457)	(7,117,051)	(6,896,043)	(9,428,797)	(7,823
ATIONS							
ncome							
e):							
income	1,272	(643,063)	(2,458,667)	(792,549)	(1,182,695)	784	738
e), net							
expense)	(3,761)	—	—	—	12,023,888	130,186	—
, net							
change							
alue of	(7,508,146)	—	—	—	—	(1,663,316)	(6,145
liability							
ncome							
on for	(17,686,472)	(7,150,712)	(10,515,124)	(7,909,600)	3,945,150	(10,961,143)	(13,96
taxes							
taxes	—	—	—	—	572	—	—
)	$(17,686,472)	$(7,150,712)	$(10,515,124)	$(7,909,600)	$3,944,578	$(10,961,143)	$(13,96

	Years Ended September 30,					Nine Months Ended Jun	
OSS)							
ME							
s)							
per							
	$(0.03)	$(0.01)	$(0.03)	$(0.03)	$0.02	$(0.01)	$(0.02
	$(0.03)	$(0.01)	$(0.03)	$(0.03)	$0.01	$(0.01)	$(0.02
ed							
n shares							
ding:							
	703,852,716	576,091,498	376,833,809	300,352,913	251,520,538	804,032,409	683,70
	703,852,716	576,091,498	376,833,809	300,352,913	308,912,411	804,032,409	683,70

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Consolidated Balance Sheet Data

	As of September 30,					As of June 30,
	2013	2012	2011	2010	2009	2014
Current assets:						
Cash and cash equivalents	$6,360,301	$724,782	$2,747,294	$17,618	$213,307	$2,025,716
Accounts receivable, net of allowance	672,638	296,994	208,587	63,029	47,302	518,274
Prepaid expenses	174,096	80,037	76,290	161,456	79,436	170,792
Total current assets	7,207,035	1,101,813	3,032,171	242,103	340,045	2,714,782
Noncurrent assets	1,267,931	247,121	471,385	1,171,211	1,167,025	1,056,233
Total assets	$8,374,966	$1,348,934	3,503,556	$1,413,314	$1,507,070	$3,771,015
Current liabilities:						
Accounts payable and accrued liabilities	$966,977	$592,009	$768,061	$967,550	$843,491	$1,259,439
Advances from Officers	—	—	—	50,000	—	
Convertible notes payable, net	—	—	3,730,880	1,774,080	2,410,411	
Deferred revenue	148,503	—	—	—	—	348,624
Total current liabilities	1,115,480	592,009	4,498,941	2,791,630	3,253,902	1,608,063
Convertible note payable-related party, net	—	—	—	219,714	—	—
Warrant liability	2,643,449	—	—	—	—	1,851,723
Total liabilities	3,758,929	592,009	4,498,941	3,011,344	3,253,902	3,459,786
Preferred stock	—	—	—	—	—	—
Common stock	786,527	646,183	473,326	346,366	275,204	827,332
Additional paid in capital	190,523,121	169,117,881	160,387,716	149,396,907	141,409,667	197,138,651
Accumulated deficit	(186,693,611)	(169,007,139)	(161,856,427)	(151,341,303)	(143,431,703)	(197,654,754)
Total stockholders' equity (deficit)	4,616,037	756,925	(995,385)	(1,598,030)	(1,746,832)	311,229

	As of September 30,					As of June 30, 2014
Total Liabilities and Stockholders' Equity (Deficit)	$8,374,966	$1,348,934	$3,503,556	$1,413,314	$1,507,070	$3,771,015

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RISK FACTORS

Investment in our common stock involves a number of risks. You should be able to bear the complete loss of your investment. In addition to the risks and investment considerations discussed elsewhere in this prospectus, the following factors should be carefully considered by anyone purchasing the securities offered by this prospectus. 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 currently deem immaterial also may impair our business operations. If any of the following risks actually occur, our business could be harmed. In such case, the trading price of our common stock could decline and investors could lose all or a part of their investment.

Risks Relating to Our Business:

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

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

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

We incurred operating losses of $9.4 million for the nine months ended June 30, 2014 and $10.2 million for the year ended September 30, 2013. These operating losses have principally been the result of the various costs associated with our selling, general and administrative expenses as we expanded operations, acquired, developed and validated technologies, expanded marketing activities, incurred interest expense on notes we issued to obtain financing and issued warrants with “reset” provisions. Our operations are subject to the risks and competition inherent in a company that moved from the development stage to an operating company. We may not generate sufficient revenues from operations to achieve or sustain profitability on a quarterly, annual or any other basis in the future. Our revenues and profits, if any, will depend upon various factors, including whether our existing products and services or any new products and services we develop will achieve any level of market acceptance. If we continue to incur losses, our accumulated deficit will continue to increase which might significantly impair our ability to obtain additional financing. As a result, our business, results of operations and financial condition would be significantly harmed, and we may be required to reduce or terminate our operations.

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

We will need to raise funds through either debt or the sale of our shares in order to achieve our business goals. Any shares issued would further dilute the percentage ownership held by the stockholders. Furthermore, if we raise funds in equity transactions through the issuance of convertible securities which are convertible at the time of conversion at a discount to the prevailing market price, substantial dilution is likely to occur resulting in a material decline in the price of your shares. In addition, there are currently warrants outstanding which have cashless exercise features tied to the then market price of our common stock which could result in the issuance of substantial additional shares of common stock upon a cashless exercise. This offering as well as future offerings could result in further dilution to investors as a result of price adjustment provisions in the warrants. We are seeking to use a portion of the proceeds of this offering to repurchase such warrants; however, we cannot assure you that such repurchase will be effected.

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

We derive a significant amount of revenues from a group of customers that supply FSC 5962 parts to DLA. Taken as a group, these customers were responsible for approximately 54% and 46% of our revenues

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for the years ended September 30, 2013 and 2012, respectively, and 48% for the nine months ended June 30, 2014. As of December 15, 2014, DLA will DNA mark all FSC 5962 microcircuits at its Electronic Test Laboratory in Columbus, Ohio and will no longer issue solicitations requiring suppliers to provide DNA marked FSC 5962 microcircuits. APDN is working with DLA to develop an appropriate transition plan to this new approach. Over time, this change could result in lower revenues and could adversely impact our business, financial condition or results of operations.

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

Although no customer represented greater than 10% of our total revenues for the nine months ended June 30, 2014 or fiscal 2013, in the past we have derived a significant amount of revenues from a few customers. An aggregate of 54% of our total revenues for fiscal 2012 was attributable to two customers. An aggregate of 53% of our total revenues for fiscal 2011 were attributable to three customers. Generally our customers do not have an obligation to make purchases from us and may stop ordering our products and services or may terminate existing orders or contracts at any time with little or no financial penalty. The loss of any of our significant customers, any substantial decline in sales to these customers or any significant change in the timing or volume of purchases by our customers could result in lower revenues and could harm our business, financial condition or results of operations.

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

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

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

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

While credit and financial markets seemed to have stabilized from their period of extreme distress, there can be no assurance that our liquidity will not be affected by changes in the financial markets and the global economy.

Moreover, the recent crisis has had a significant material adverse impact on a number of financial institutions and has limited access to capital and credit for many companies. This could, among other things, make it more difficult for us to obtain, or increase our cost of obtaining, capital and financing for our operations. Our access to additional capital may not be available on terms acceptable to us or at all.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

While we require our independent manufacturers to operate in compliance with applicable laws and regulations, we have no control over their ultimate actions. While our internal and vendor operating guidelines promote ethical business practices and our staff and buying agents periodically visit and monitor the operations of our independent manufacturers, we do not control these manufacturers or their labor practices. The violation of labor or other laws by our independent manufacturers, or by one of our licensing partners, or the divergence of an independent manufacturer's or licensing partner's labor practices from

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those generally accepted as ethical in the United States, could interrupt, or otherwise disrupt the shipment of finished products to us or damage our reputation. Any of these, in turn, could have a material adverse effect on our financial condition and results of operations, such as the loss of potential revenue and incurring additional expenses.

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

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

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

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

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

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

- operations and financial systems;
- procedures and controls; and
- training and management of our employees.

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

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

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

- nationalization of private enterprises and assets;
- political or economic instability in certain countries and regions;

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- differences in foreign laws, including increased difficulties in protecting intellectual property and uncertainty in enforcement of contract rights;
- the possibility that foreign governments may adopt regulations or take other actions that could directly or indirectly harm our business and growth strategy;
- credit risks;
- currency fluctuations;
- tariff and tax increases;
- export and import restrictions and restrictive regulations of foreign governments;
- shipping products during times of crisis or wars; and
- Other risks inherent in foreign operations.

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

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

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

Recruiting and retaining qualified scientific and production personnel to perform and manage prototype, sample, and product manufacturing and business development personnel to conduct business development are critical to our success. In addition, our desired growth and expansion into areas and activities requiring additional expertise, such as clinical testing, government approvals, production, sales and marketing will require the addition of new management personnel and the development of additional expertise by existing management personnel. Because the industry in which we compete is very competitive, we face significant challenges attracting and retaining a qualified personnel base. Although we believe we have been and will be able to attract and retain these personnel, we may not be able to

continue to successfully attract qualified personnel. The failure to attract and retain these personnel or, alternatively, to develop this expertise internally would harm our business since our ability to conduct business development and manufacturing will be reduced or eliminated, resulting in lower revenues. We generally do not enter into employment agreements requiring our employees to continue in our employment for any period of time.

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

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

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unenforceable. We also seek to maintain certain intellectual property as trade secrets. The secrecy could be compromised by third parties, or intentionally or accidentally by our employees, which would cause us to lose the competitive advantage resulting from these trade secrets.

Intellectual property litigation could harm our business.

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

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

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

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

Accidents related to hazardous materials could adversely affect our business.

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

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

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

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

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

Risks Relating to Our Common Stock, Warrants and this Offering:

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 securities purchased in this offering.

If we raise capital in the future by issuing additional securities, investors may experience a decline in the value of the securities purchased in this offering. In addition, such securities may have rights senior to the rights of the securities purchased in this offering.

Our management has broad discretion as to the use of the net proceeds from this offering.

We cannot specify with certainty the particular uses of the net proceeds we will receive from this offering, and these uses may vary from our current plans. Our management will have broad discretion in the application of the net proceeds, including for any of the purposes described in “Use of Proceeds.” Accordingly, you will have to rely upon the judgment of our management with respect to the use of the proceeds. Our management may spend a portion or all of the net proceeds from this offering in ways that holders of our common stock may not desire or that may not yield a significant return or any return at all. The failure by our management to apply these funds effectively could harm our business. Pending their use, we may also invest the net proceeds from this offering in a manner that does not produce income or that loses value.

You will experience immediate and substantial dilution in the net tangible book value per share of the common stock you purchase.

Since the price per share of our common stock being offered is substantially higher than the net tangible book value per share of our common stock, you will suffer substantial dilution in the net tangible book value of the common stock you purchase in this offering. Based on a public offering price of $ per share, if you purchase shares of common stock in this offering, you will suffer immediate and substantial dilution of approximately ($) per share in the net tangible book value of the common stock. See the section entitled “Dilution” in this prospectus for a more detailed discussion of the dilution you will incur if you purchase common stock in this offering

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 September 30, 2014, we had 836,157,272 shares of common stock issued and outstanding and outstanding options and warrants to purchase 231,249,013 shares of common stock. The issuance of shares upon exercise of outstanding options and warrants will cause immediate and substantial dilution to the interests of other stockholders.

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

Companies trading on The Over The Counter Market Group (the "OTCQB"), such as us, must be reporting issuers under Section 12 or Section 15(d) of the Exchange Act, and must be current in their reports under Section 13, in order to maintain price quotation privileges on the OTCQB. If we fail to remain current on our reporting requirements, we could be removed from the OTCQB. As a result, the market liquidity for our securities could be severely adversely affected by limiting the ability of broker-dealers to sell our securities and the ability of stockholders to sell their securities in the secondary market.

We have identified a material weakness in our internal control over financial reporting that could adversely affect our stock price and ability to prepare complete and accurate financial statements in a timely manner.

We concluded that our disclosure controls and procedures were not effective as of September 30, 2013 and June 30, 2014, and this deficiency constituted a material weakness in our internal control over financial reporting as of September 30, 2013 and June 30, 2014. The material weakness, which arose primarily due to the need for more enhanced and formalized documentation and procedures regarding the financial statement closing and review process, is further described in "Management's Discussion and Analysis of Financial Condition and Results of Operations — Remediation of Weakness in Internal Controls." We are taking steps to remediate this material weakness and to improve our disclosure controls and procedures. We may, however, identify additional or future material weaknesses or deficiencies. If we fail to remediate the identified or any future material weakness or deficiency, or to maintain our disclosure controls and procedures at the reasonable assurance level, our financial statements and related disclosure could contain material misstatements, the preparation and filing of our financial statements and related filings could be delayed, and substantial costs and resources may be required to remediate any weaknesses or deficiencies or to improve our disclosure controls and procedures. If we cannot produce reliable and timely financial statements, investors could lose confidence in our reported financial information, the market price of our stock could decline significantly, we may be unable to obtain additional financing on acceptable terms, and our business and financial condition could be harmed.

Our common stock is quoted on the OTCQB, which may provide less liquidity for our shareholders than the national exchanges.

Previously, our common stock was quoted on the OTCBB. However, because of the lack of a market maker willing to list bid and ask quotations for our common stock, we were removed from the OTCBB and now are quoted on the OTCQB. As compared to being quoted on a national exchange, being quoted on the OTCQB may result in reduced liquidity for our shareholders, may cause investors not to trade in our stock and may result in a lower stock price. In addition, investors may find it more difficult to obtain accurate quotations of the share price of our common stock. Trading of our common stock through the OTCQB is frequently thin and highly volatile, and there is no assurance that a sufficient market will develop in our common stock, in which case it could be difficult for our shareholders to sell their stock.

We have applied for listing of our common stock and we intend to apply to list the warrants offered hereby on either the NASDAQ Capital Market or the NYSE MKT in connection with this offering. We expect that our common stock and warrants will be eligible to be quoted on the NASDAQ Capital Market or the NYSE MKT. For our common stock and warrants to be listed on the NASDAQ Capital Market or the NYSE MKT, we must meet the current NASDAQ Capital Market or NYSE MKT listing requirements. If we were unable to meet these requirements, our common stock and warrants could be delisted from the NASDAQ Capital Market or NYSE MKT. If our common stock and warrants were to be delisted from the NASDAQ Capital Market or NYSE MKT, our common stock and warrants could continue to trade on the over-the-counter bulletin board following any delisting from the NASDAQ Capital market or NYSE MKT. Any such delisting of our common stock and warrants could have an adverse effect on the market price of, and the efficiency of the trading market for, our common stock, 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.

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

The SEC has adopted Rule 15g-9 which establishes the definition of a "penny stock," for the purposes relevant to us, as any security not listed on a national securities exchange that has a market price of less than $5.00 per share and offered by an issuer with limited net tangible assets and revenues. Since our common stock currently is quoted on the OTCQB at less than $5.00 per share, our shares are "penny stocks" and may not be traded unless a disclosure schedule explaining the penny stock market and the risks associated therewith is delivered to a potential purchaser prior to any trade. Broker-dealers must take certain steps prior to selling a "penny stock," which steps include:

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

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

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

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

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

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

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

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

There may have been inadvertent violations of federal and state securities laws in connection with certain sales of shares of our common stock in the open market pursuant to a registration statement on Form S-3 that we had filed to

cover the resale of shares issued or to be issued that was declared effective by the Securities and Exchange Commission on July 31, 2013. On December 20, 2013, we filed our annual report on Form 10-K for the fiscal year ended September 30, 2013 (the "Original 2013 Form 10-K") which did not include the auditor attestation report on internal control over financial reporting required by Section 404(b) of Sarbanes-Oxley (the "Auditor Attestation Report"). On May 1, 2014, we filed a Form 10K/A amendment to the Original 2013 Form 10-K in order to include the Auditor Attestation Report. There were approximately three months when sales of shares may have occurred in open market transactions pursuant to our registration statement when the use thereof should have been suspended. Any such sales may have violated Section 5 or Section 12(a)(1) of the Securities Act of 1933, as amended, and, as a result, we may be liable for claims for damages. In addition, the Securities and Exchange Commission and relevant state regulators could impose monetary fines or other sanctions on us as provided under

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relevant federal and state securities laws. The amount of such damages and penalties, if any, cannot be determined at this time. If the payment of damages or fines is significant, it could have a material, adverse effect on our cash flow, financial condition or prospects.

Risks Related To Our Proposed Reverse Stock Split:

We intend to complete reverse stock split of our outstanding common stock prior to the completion of this offering. However, we cannot assure you that we will be able to continue to comply with the minimum price requirements of The NASDAQ Capital Market or NYSE MKT.

We intend to complete a reverse stock split in order to achieve the requisite increase in the market price of our common stock to be in compliance with the minimum price requirements of the NASDAQ Capital Market or NYSE MKT. We cannot assure you that the market price of our common stock following the reverse stock split will remain at the level required for continuing compliance with that requirement. It is not uncommon for the market price of a company's common stock to decline in the period following a reverse stock split. If the market price of our common stock declines following the effectuation of a reverse stock split, the percentage decline may be greater than would occur in the absence of a reverse stock split. In any event, other factors unrelated to the number of shares of our common stock outstanding, such as negative financial or operational results, could adversely affect the market price of our common stock and jeopardize our ability to maintain the NASDAQ Capital Market or NYSE MKT's minimum price requirements. In addition to specific listing and maintenance standards, the NASDAQ Capital Market and NYSE MKT has broad discretionary authority over the initial and continued listing of securities, which it could exercise with respect to the listing of our common stock.

Even if the proposed reverse stock split increases the market price of our common stock, there can be no assurance that we will be able to comply with other continued listing standards of the NASDAQ Capital Market or NYSE MKT.

Even if the market price of our common stock increases sufficiently so that we comply with the minimum bid price requirement, we cannot assure you that we will be able to comply with the other standards that we are required to meet in order to maintain a listing of our common stock or warrants sold in this offering on The NASDAQ Capital Market or NYSE MKT. Our failure to meet these requirements may result in our common stock or warrants sold in this offering being delisted from The NASDAQ Capital Market or NYSE MKT, irrespective of our compliance with the minimum bid price requirement.

If our common stock were delisted from the NASDAQ Capital Market or NYSE MKT and determined to be a "penny stock," a broker-dealer may find it more difficult to trade our common stock and an investor may find it more difficult to acquire or dispose of our common stock in the secondary market.

If our common stock were removed from listing with the NASDAQ Capital Market or NYSE MKT, it may be subject to the so called "penny stock" rules. The SEC has adopted regulations that define a "penny stock" to be any equity security that has a market price per share of less than $5.00, subject to certain exceptions, such as any securities listed on a national securities exchange. For any transaction involving a "penny stock," unless exempt, the rules impose additional sales practice requirements on broker-dealers, subject to certain exceptions. If our common stock were delisted from the NASDAQ Capital Market or NYSE MKT and determined to be a "penny stock," a broker-dealer may find it more difficult to trade our common stock and an investor may find it more difficult to acquire or dispose of our common stock on the secondary market. Investors in penny stocks should be prepared for the possibility that they may lose their whole investment.

The proposed reverse stock split may decrease the liquidity of the shares of our common stock.

The liquidity of the shares of our common stock may be affected adversely by the proposed reverse stock split given the reduced number of shares that will be outstanding following the reverse stock split, especially if the market price of our common stock does not increase as a result of the reverse stock split.

Following the proposed reverse stock split, the resulting market price of our common stock may not attract new investors, including institutional investors, and may not satisfy the investing requirements of those investors. Consequently, the trading liquidity of our common stock may not improve.

Although we believe that a higher market price of our common stock may help generate greater or broader investor interest, we cannot assure you that the reverse stock split will result in a share price that

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will attract new investors, including institutional investors. In addition, there can be no assurance that the market price of our common stock will satisfy the investing requirements of those investors. As a result, the trading liquidity of our common stock may not necessarily improve.

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FORWARD-LOOKING INFORMATION

This prospectus contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, included in this prospectus, including, without limitation, statements regarding the assumptions we make about our business and economic model, business strategy and other plans and objectives for our future operations, are forward-looking statements.

These forward-looking statements include declarations regarding our management's beliefs and current expectations. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "would," "could," "expects," "plans," "contemplates," "anticipates," "believes," "estimates," "predicts," "projects," "intend" or "continue" or the such terms or other comparable terminology, although not all forward-looking statements contain these identifying words. Forward-looking statements are subject to inherent risks and uncertainties in predicting future results and conditions that could cause the actual results to differ materially from those projected in these forward-looking statements. Some, but not all, of the forward-looking statements contained in this prospectus include, among other things, statements about the following:

- Our significant losses and negative cash flow raise questions about our ability to operate profitably;
- The risk that we will be unable to find sufficient financing to fund our operations;
- The risk that we will be unable to successfully introduce our products into commercial space;
- The risk that we may fail to adequately protect our intellectual property rights;
- The risks associated with sales in foreign operations;
- Future sale of our common stock that could depress the trading price of our common stock, lower our value and make it more difficult for us to raise capital;
- Our ability to compete effectively; and
- Other matters described in the "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations," and "Business."

You should also read the matters described in "Risk Factors" and the other cautionary statements made in this prospectus as being applicable to all related forward-looking statements wherever they appear in this prospectus. The forward-looking statements in this prospectus may not prove to be accurate and therefore you are encouraged not to

place undue reliance on forward-looking statements. You should read this prospectus completely.

INDUSTRY AND MARKET DATA

This prospectus includes information concerning our industry and the market in which we operate that we obtained from internal research, publicly available information and industry publications and surveys. Although we are responsible for all of the disclosure contained in this prospectus and we believe the information from the third-party sources included in this prospectus is reliable, such information is inherently imprecise and we have not independently verified this information and it could prove inaccurate.

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USE OF PROCEEDS

We estimate that we will receive net proceeds of approximately $10,639,500 from our sale of common stock and corresponding warrants in this offering, or approximately $ 12,313,500 million if the underwriter exercises in full its option to purchase additional shares of common stock and warrants, after deducting the estimated underwriting discount and estimated offering expenses payable by us. We intend to use the net proceeds received from this offering for the following purposes:

Proceeds:		
Gross Proceeds	$	12,000,000
Fees and Expenses		(1,360,500)
Net Proceeds	$	10,639,500
Uses:		
Working Capital and Repurchase of Warrants	$	8,100,000
Business Development		1,539,500
Research and Development		1,000,000
Total Uses	$	10,639,500

The actual allocation of proceeds realized from this offering will depend upon our operating revenues and cash position and our working capital requirements.

Therefore, as of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering. Accordingly, we will have broad discretion in the application of the net proceeds, and investors will be relying on our judgment regarding the application of the proceeds of this offering.

Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation investments, including short-term, investment-grade, interest-bearing instruments and U.S. government securities.

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MARKET FOR OUR COMMON STOCK

Our common stock is quoted on The Over The Counter Market Group ("OTCQB") maintained by the National Association of Securities Dealers under the symbol "APDN." We have applied for listing of our common stock on either the NASDAQ Capital Market or NYSE MKT under the symbol "APDN". No assurance can be given that our application will be approved. There is no certainty that the common stock will continue to be quoted or that any liquidity exists for our stockholders.

The following table sets forth the quarterly quotes of high and low prices for our common stock on the OTCQB during the fiscal years ended September 30, 2013 and September 30, 2014.

	Fiscal 2013		**Fiscal 2014**	
	High	**Low**	**High**	**Low**
First Quarter	$ 0.29	$ 0.17	$ 0.19	$ 0.08
Second Quarter	$ 0.23	$ 0.13	$ 0.18	$ 0.12
Third Quarter	$ 0.26	$ 0.17	$ 0.14	$ 0.10
Fourth Quarter	$ 0.20	$ 0.09	$ 0.13	$ 0.09

Holders

As of September 30, 2014, we had approximately 688 holders of our common stock. The number of record holders was determined from the records of our transfer agent and does not include beneficial owners of common stock whose shares are held in the names of various security brokers, dealers, and registered clearing agencies. The transfer agent of our common stock is American Stock Transfer & Trust Company, located at 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.

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DILUTION

If you purchase securities in this offering, your interest will be immediately and substantially diluted to the extent of the difference between the public offering price per share of our common stock and the as adjusted net tangible book value per share of our common stock after giving effect to this offering.

Our net tangible book value as of June 30, 2014 was approximately $1,811,000 or approximately $0.0022 per share of common stock. After giving effect to the sale of the shares in this offering at the assumed public offering price of $__ per share and after deducting underwriter discounts and commissions and other estimated offering expenses payable by us, our pro forma as adjusted net tangible book value at June 30, 2014 would have been approximately $_____ million or $_____ per share. This represents an immediate increase in net tangible book value of approximately $_____ per share to our existing stockholders, and an immediate dilution of $_____ per share to investors purchasing shares in the offering.

Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of our common stock in this offering and the net tangible book value per share of our common stock immediately after this offering.

The following table illustrates the per share dilution to investors purchasing shares in the offering:

Public offering price per share			$
Net tangible book value per share as of June 30, 2014	$	1,811,000	
Increase in net tangible book value per share attributable to this offering	$		
Adjusted net tangible book value per share after this offering			$
Amount of dilution in net tangible book value per share to new investors in this offering			$

The information above assumes that the underwriter does not exercise its over-allotment option. If the underwriter exercises its over-allotment option in full, the as adjusted net tangible book value will increase to $_____ per share, representing an immediate increase to existing stockholders of $_____ per share and an immediate dilution of $_____ per share to new investors. If any shares are issued upon exercise of outstanding options or warrants, new investors will experience further dilution.

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CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization, as of June 30, 2014:

- on an actual basis; and
- on a pro forma basis, based on an offering price of $_____ per share of common stock, to give effect to:
- the sale of _____ shares of common stock and warrants to purchase _____ shares of common stock, after deducting the estimated underwriter discounts and commissions and estimated offering expenses payable by us; and
- a ___-for-___ reverse stock split of our common stock that we will complete prior to the closing of this offering.

The pro forma information below is only for illustrative purposes and our capitalization following the completion of this offering will be adjusted based on the actual offering price and other terms of this offering determined at pricing. You should consider this table in conjunction with “Use of Proceeds” above as well as our “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our financial statements and the notes to those financial statements included elsewhere in this prospectus.

		As of June 30, 2014	
		Unaudited, Actual	**Unaudited, Pro forma**
Cash and cash equivalents	$	2,025,716	
Warrant liability		1,851,723	
Stockholders’ Equity:			
Preferred stock, par value $0.001 per share; 10,000,000 shares authorized; -0- shares issued and outstanding as of June 30, 2014	$		$
Series A Preferred stock, par value $0.001 per share; 10,000,000 shares authorized; -0- shares outstanding as of June 30, 2014			
Series B Preferred stock, par value $.001 per share; 10,000,000 shares authorized; -0- shares outstanding as of June 30, 2014 Common stock, $0.001 par value per share; 1,350,000,000 shares authorized; 827,332,292 shares issued and outstanding as of June 30, 2014		827,332	
Additional paid-in capital		197,138,651	
Accumulated deficit		(197,654,754)	
Total Stockholders’ Equity	$	311,229	

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Introduction

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

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

SigNature DNA, SigNature T DNA, fiberTyping, DNANet and digitalDNA, our principal anti-counterfeiting and product authentication solutions, and our Counterfeit Prevention Authentication Program can be used in numerous industries, including microcircuits and other electronics, cash-in-transit (transport and storage of banknotes), homeland security, textiles and apparel, identity cards and other secure documents, law enforcement, industrial materials, pharmaceuticals, wine, and luxury consumer goods. See "Business" for full descriptions of these products.

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

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

digitalDNA. digitalDNA is a security solution that utilizes the flexibility of mobile communications, the instant accessibility of secure, cloud-based data, and the certainty of DNA to make item tracking and authentication fast, easy and definitive, while providing the opportunity to create a new customer interface. digitalDNA begins with a DNA-secured form of the QR ("quick read") code or other two dimensional code. A unique identification code is created for each article, and represented in an easy-to-read QR style

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barcode. The product uses forensic authentication of a botanical DNA marker, embedded within a secure QR code, and physically included within the ink used to digitally print the code. Should there ever be a question about the validity of a digitalDNA code; a laboratory-based analysis can be conducted to determine authenticity.

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

General

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

Critical Accounting Policies

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

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

The accounting policies identified as critical are as follows:

- Revenue recognition;
- Equity based compensation;
- Fair value of financial instruments.

Revenue Recognition

We recognize revenue in accordance with Accounting Standards Codification ("ASC") 605, Revenue Recognition ("ASC 605"). ASC 605 requires that four basic criteria must be met before revenue can be recognized: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred and/or service has been performed; (3) the selling price is fixed and determinable; and (4) collectability is reasonably assured. Determination of criteria (3) and (4) are based on management's judgments regarding the fixed nature of the selling prices of the products delivered or services provided and the collectability of those amounts. Provisions for allowances and other adjustments are provided for in the same period the related sales are recorded. We defer any revenue for which the product has not been delivered, service hasn't

been provided, or is subject to refund until such time that we and the customer jointly determine that the product has been delivered, service has been provided, or no refund will be required. At June 30, 2014 and September 30, 2013, we recorded deferred revenue of $348,624 and 148,503, respectively.

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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 a government contract award, which supports our development efforts on specific projects, is recognized as milestones under the contract are achieved as per the contract. We recognized revenue of approximately $0 and $50,000 from this contract during the three and nine month periods ended June 30, 2014, respectively.

Equity Based Compensation

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

Fair Value of Financial Instruments

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

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

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

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

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

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

Use of Estimates

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

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Remediation of Weakness in Internal Controls

We concluded that our disclosure controls and procedures were not effective as of June 30, 2014 as the result of a material weakness in our internal control over financial reporting as of September 30, 2013 that was not yet remediated as of June 30, 2014. The material weakness, which arose primarily due to the need for more enhanced and formalized documentation and procedures regarding the financial statement closing and review process, is further described in Item 4 of our June 30, 2014 Quarterly Report on Form 10-Q. Our management has developed a remediation action plan and we are actively engaged in the implementation of the plan to fully remediate our material weakness. The principal elements of our remediation include the following:

- Our CEO has appointed a Sarbanes-Oxley project leadership team, consisting of our CFO and our Controller, that are overseeing the project;
- Together with a consultant that we have engaged, we have enhanced our review procedures and the documentation thereof; and
- We have implemented these enhanced procedures as we prepared our Form 10-Q for the period ended June 30, 2014.

Comparison of Results of Operations for the Three Month Periods Ended June 30, 2014 and 2013

Revenues

For the three month periods ended June 30, 2014 and 2013, we generated $841,197 and $644,842, respectively, in revenues from operations. The increase in revenues of $196,355 or 30% was primarily from an increase of approximately $85,000 in sales of DNANet kits in Europe. The increase was also related to a term sheet entered into with a provider of polyolefins where we agreed to cooperate in the development and supply of markers and related additives for polyolefin products. We also had an increase in sales of approximately $30,000 to a Cash in-transit customer.

Costs and Expenses

Selling, General and Administrative

Selling, general and administrative expenses for the three month periods ended June 30, 2014 decreased by $292,363 or 9% from $3,240,815 for the three month period ended June 30, 2013 to $2,948,452 for the three month period ended June 30, 2014. The decrease is primarily attributable to a reduction in stock based compensation expense for stock option modifications. During both the three month periods ended June 30, 2014 and 2013, we extended the term of options, which resulted in a charge to the statement of operations of approximately $43,000 and $409,000, for the three month periods ended June 30, 2014 and 2013, respectively, a decrease of $366,000. The other significant decreases were consulting expense, which decreased approximately $130,000 due to our entering into a distributor agreement with a company in Sweden that during fiscal 2013 we compensated as a consultant, which resulted in higher payments. Bad debt expense also decreased by approximately $70,000 for the three month period ended June 30, 2014 as compared to the same period in the prior fiscal year. There was also a decrease in travel expense of approximately $69,000 and office expense/building repairs of $65,000. These decreases were partially offset by higher salary expense of approximately $235,000 due to an increase in headcount from 44 as of June 30, 2013 to 58 as of June 30, 2014. The increase in the number of employees compared to the same period in the prior year was due to increased work in the production, sales, information technology and finance sectors of the Company, to meet the anticipated future demand for sales. Selling, General and Administrative expenses also increased due to an increase in rent and related utilities by approximately $80,000 as a result renting the larger office space, and our now paying utilities as compared to them being included as part of the rent during the three month period ended June 30, 2013.

Legal fees also increased by approximately $130,000, related to legal fees incurred for the SmartWater litigation, as disclosed in footnote G of the June 30, 2014 condensed consolidated financial statements.

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Research and Development

Research and development expenses increased to $266,331 for the three month period ended June 30, 2014 from $184,981 for the three month period ended June 30, 2013. The increase of $81,350 or 44% is attributable to the increased laboratory space with our new corporate headquarters as well as an increase in research and development to support the expansion of our business and markets. In particular, we have multiple workstreams in progress toward a launch of new products for field detection and rapid reading of optical marks which use the SigNature DNA ingredient.

Depreciation and Amortization

In the three month period ended June 30, 2014, depreciation and amortization increased by $51,144 from $62,280 for the three month period ended June 30, 2013 to $113,424 for the three month period ended June 30, 2014. The increase is attributable to depreciation and amortization expense for the leasehold improvements and lab equipment purchased during the second half of the fiscal year ended September 30, 2013 primarily related to the relocation of our corporate offices. The increase also relates to amortization for the intellectual property purchased from RedWeb Technologies during May 2013.

Gain from Change in Fair Value of Warrant Liability

Gain from change in fair value of warrant liability during the three month periods ended June 30, 2014 and 2013 was $515,543 and $707,289, respectively. These changes in fair value relate to warrants containing certain reset provisions which required us to classify them as liabilities and mark the warrants to market and record the change in fair value at each reporting period, and upon exercise as a non-cash adjustment to our current period operations.

Comparison of Results of Operations for the Nine Month Periods Ended June 30, 2014 and 2013

Revenues

For the nine month periods ended June 30, 2014 and 2013, we generated $2,075,698 and $1,307,117, respectively, in revenues from operations. The increase in revenues of $768,581 or 59% was primarily from an increase in sales to suppliers of the United States Defense Logistics Agency (“DLA”) of approximately $350,000 from renewals of existing contracts as well as the signing of new contracts. The increase in revenue is also related to a term sheet entered into with a provider of polyolefins where we agreed to cooperate in the development and supply of markers and related additives for polyolefin products. The increase relates to a higher level of sales in the textile industry, primarily for an exclusivity contract with one customer, and to a smaller extent, an increase in fiberTyping sales.

Costs and Expenses

Selling, General and Administrative

Selling, general and administrative expenses for the nine month period ended June 30, 2014 increased by $1,577,241 or 19% from $8,516,390 for the nine month period ended June 30, 2013 to $10,093,631 for the nine month period ended June 30, 2014. The increase is primarily attributable to an increase in payroll of approximately $830,000 due to an increase in headcount from 44 as of June 30, 2013 to 58 as of June 30, 2014. The increase in the number of employees compared to the same period in the prior year was due to an increase in production, sales, information technology and finance sectors, to meet the anticipated future demand for sales.

The increase is also due to shares of common stock issued to a business strategy consultant for settlement of their fees during the nine month period ended June 30, 2014 for $337,500. Rent and related utilities expense increased by approximately $253,000 as a result of the larger office space and our now paying utilities as compared to them being included as part of rent during the period ended June 30, 2013. Legal fees also increased by approximately $285,000, related to legal fees incurred for the SmartWater litigation, as disclosed in footnote G of the condensed consolidated financial statements.

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Research and Development

Research and development expenses increased to $1,085,416 for the nine month period ended June 30, 2014 from $509,132 for the nine month period ended June 30, 2013. The increase of $576,284 or 113% is attributable to the increased laboratory space with our new corporate headquarters as well as an increase in research and development to support the expansion of our business and markets. In particular, we have multiple workstreams in progress toward a launch of new products for field detection and rapid reading of optical marks which use the SigNature DNA ingredient.

Depreciation and Amortization

During the nine month period ended June 30, 2014, depreciation and amortization increased by $220,343 from $105,105 for the nine month period ended June 30, 2013 to $325,448 for the nine month period ended June 30, 2014. The increase is attributable to depreciation and amortization expense for the leasehold improvements and lab equipment purchased during the second half of the fiscal year ended September 30, 2013 related to the relocation of our corporate offices. The increase also relates to amortization for the intellectual property purchased from RedWeb Technologies during May 2013 and purchases of lab equipment during the nine month period ended June 30, 2014 of approximately $210,000.

Loss from Change in Fair Value of Warrant Liability

Loss from change in fair value of warrant liability during the nine month periods ended June 30, 2014 and 2013 was $1,663,316 and $6,145,229, respectively. These losses relate to warrants containing certain reset provisions which required us classify them as liabilities and mark the warrants to market and record the change in fair value at each reporting period, and upon exercise as a non cash adjustment to our current period operations.

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

Revenues

For the years ended September 30, 2013 and 2012, we generated $2,036,222 and $1,854,694 in revenues from operations, respectively. The increase in revenues of $181,528 or 9.8% for the twelve months ended September 30, 2013 was primarily caused by sales to suppliers of the DLA. In late January 2013, the DLA announced that it would subsidize marking costs for its trusted suppliers, and in March 2013, after this and other mechanisms were in place, we were able to begin shipments for this market. The sales to these third party suppliers during the year ended September 30, 2013 was offset by a decrease in sales due to the completion of our prior pilot contract with the Logistics Management Institute (“LMI”). Revenue during the twelve months ended September 30, 2013 included $100,000 recognized from a development contract from the Missile Defense Agency.

Costs and Expenses

Selling, General and Administrative

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

Research and Development

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

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Depreciation and Amortization

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

Total Operating Expenses

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

Interest (Expenses) Income

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

Loss from Change in Fair Value of Warrant Liability

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

Net Loss

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

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

Revenues

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

Costs and Expenses

Selling, General and Administrative

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

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Research and Development

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

Depreciation and Amortization

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

Total Operating Expenses

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

Interest Expenses

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

Net Loss

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

Liquidity and Capital Resources

Our liquidity needs consist of our working capital requirements and research and development expenditure funding. As of June 30, 2014, we had working capital of $1,106,719. For the nine month period ended June 30, 2014, we generated a net cash flow deficit from operating activities of $6,271,019 consisting primarily of our loss of $10,961,143, net with non-cash adjustments of $325,448 in depreciation and amortization charges, $1,717,837 for stock-based compensation, $1,663,316 change in fair value of warrant liability, $337,500 in common stock issued for consulting services and $16,878 of bad debt expense. Additionally, we had a net decrease in operating assets of $136,562 and a net increase in operating liabilities of $492,583. Cash used in investing activities was $209,522 for the purchase of property, plant and equipment. Cash provided by financing activities was $2,145,956 in proceeds from the sale of common stock related to a private placement during June 2014.

We have recurring net losses, which has resulted in an accumulated deficit of $197,654,754 as of June 30, 2014. We incurred a net loss of $10,961,143 and generated negative operating cash flow of $6,271,019 for the nine month period ended June 30, 2014. However, we have attained positive working capital of $1,106,719 as of June 30, 2014. At June 30, 2014, we had cash and cash equivalents of $2,025,716. Our current capital resources include cash and cash equivalents and other working capital resources. Historically, we have financed our operations principally from the sale of equity securities. During June 2014, we raised $2,145,956 in a private placement transaction (see Note E of the June 30, 2014 condensed consolidated financial statements).

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

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Our ability to continue as a going concern is dependent on our ability to successfully accomplish the plan described in the preceding paragraphs. The June 30, 2014 condensed consolidated financial statements do not include any adjustments relating to the recoverability and classification of asset carrying amounts or the amount and classification of liabilities that might result from the outcome of this uncertainty.

We expect capital expenditures to be less than $400,000 in fiscal 2014. Our primary investments will be in laboratory equipment to support prototyping, manufacturing, our authentication services, and outside services for our detector and reader development.

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

Commitments and Contingencies

Our principal contractual obligations and commercial commitments at September 30, 2013, are summarized in the following charts. We have no other off-balance sheet commitments.

		Payments Due By Period			
Contractual Obligations (in thousands)	**Total**	**Less Than 1 Year**	**1 – 3 Years**	**3 – 5 Years**	**Over 5 Years**
Lease commitments:					
Operating leases	$ 1,199,187	$ 450,617	$ 748,570	$ —	$ —
Fixed common area maintenance	—	—	—	—	—
Total	$ 1,199,187	$ 450,617	$ 748,570	$ —	$ —

Recent Debt and Equity Financing Transactions

Fiscal 2014

On September 11, 2014, we issued and sold promissory notes (the “Notes”) in the aggregate principal amount of $1,800,000 and bearing interest at a rate of 12.5% per annum to Dr. James A. Hayward, our President, Chairman and Chief Executive Officer, in the amount of $1,000,000, and to another individual, in the amount of $800,000, both of whom are “accredited investors” as defined in regulations promulgated under the Securities Act of 1933, as amended (the “Securities Act”).

The Notes have a ten month maturity. Interest may be payable in cash or in shares of common stock at the option of the holders of the Notes. The Notes may be prepaid in whole or in part, at any time, subject to certain prepayment penalties. Upon an event of default, the Notes and all accrued interest thereon shall automatically convert into common stock at the closing price of the common stock on the date of issuance of the Notes. In the event of a consolidation or merger with another corporation in which we do not survive, the Notes shall be paid in full.

On June 3, 2014 we closed a private placement of our common stock and warrants to purchase common stock (“Warrants”) with a group of investors (collectively the “Investors”), pursuant to subscription agreements for gross proceeds of $2,145,956. We issued and sold 18,735,429 shares of common stock at a purchase price of $0.11454 per share (“Purchase Price”) and Warrants to purchase 18,735,429 shares of common stock. The Purchase Price of the common stock represents a 5% discount to the volume weighted average closing price of the common stock from May 13, 2014 to May 16, 2014, which ranged from $0.1155 to $0.1245 per share during the period. The Warrants are exercisable at a price of $0.13744 per share (representing a 20% premium to the Purchase Price) for a period of one year and do not have cashless exercise provisions. The common stock purchased as well as the common stock to be issued upon exercise of the Warrants will be subject to the six month holding period provisions of Rule 144.

On July 8, 2014, we closed on an additional subscription agreement under this private placement, with the same terms as disclosed above. We issued and sold 90,000 shares of our common stock and warrants to purchase 90,000 shares of our common stock for total proceeds of $10,309.

Fiscal 2013 — Securities Purchase Agreements

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

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

Securities Issued	Initial Purchase Agreement		Second Purchase Agreement	
	Shares issued	Price per share	Shares issued	Price per share
Common Stock	10,752,688	$ 0.1860	10,695,187	$ 0.1870
Series A Warrants	10,752,688	$ 0.2232	10,695,187	$ 0.2431
Series B Warrants	29,569,862	$ 0.2232	29,411,764	$ 0.2431
Series C Warrants	26,881,720	$ 0.2232	26,737,967	$ 0.2431
Series A Preferred Stock	5,500	$ 1,000	—	$ —
Series B Preferred Stock	—	$ —	5,500	$ 1,000

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

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

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

The Series A and Series B Preferred and the Series A, B and C Warrants each contain a 9.9% "blocker" so that in no event shall the Series A and Series B Preferred or any of the Series A, B and C Warrants be convertible or exercisable (including through the cashless exercise exchange provision) into or for common stock to the extent that such conversion or exercise would result in Crede having "beneficial ownership" (within the meaning of Section 13(d) of the Securities Exchange Act of 1934, as amended) of more than 9.9% of the common stock. Crede would, however, have the right from time to time to convert, exercise or exchange for shares of common stock, which over time would

aggregate to greater than 9.9% beneficial ownership if all such shares of common stock so acquired had been held at one time by Crede.

On January 8, 2013, we exercised our option and converted the Series A Preferred into 25,462,963 shares of our common stock at a conversion price of $0.216 per share and on April 25, 2013, Crede effected the cashless exercise of the Series A and Series B Warrants related to the Initial Purchase Agreement. Also, on August 14, 2013, we exercised our option and converted the Series B Preferred into 42,307,692 shares of

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our common stock at a conversion price of $0.13 per share. On January 22, 2013, we exercised our option to repurchase the Series C warrants related to the Initial Purchase Agreement and on August 14, 2013, we exercised our option to repurchase the Series C Warrants related to the Second Purchase Agreement for $50,000 and $10,000, respectively.

Fiscal 2012

On June 21, 2012, we closed a private placement of our common stock. We issued and sold 35,576,568 shares of common stock at a purchase price of $0.04336 per share (which is equal to a 20% discount to the average volume, weighted average price of the common stock for the ten trading days prior to the closing) to an “accredited investor,” as defined in regulations promulgated under the Securities Act, for gross proceeds of $1,542,600.

On August 10, 2012, we closed a private placement of our common stock. We issued and sold 8,265,683 shares of our common stock at a purchase price of $0.04336 per share to “accredited investors,” as defined in regulations promulgated under the Securities Act, for gross proceeds of $358,400.

On September 27, 2012, we closed a private placement of our common stock. We issued and sold 1,121,265 shares of our common stock at a purchase price of $0.17837 per share to “accredited investors,” as defined in regulations promulgated under the Securities Act, for gross proceeds of $200,000.

Fiscal 2011

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

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

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

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Subsequent Events

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

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

Those FSGs are, in order of risk to DLA:

1.

- FSG 59 (Electrical and Electronic Equipment Components)

2.

- FSG 31 (Bearings)

3.

- FSG 25 (Vehicular Equipment Components)

4.

- FSG 29 (Engine Accessories)

5.

- FSG 47 (Pipe, Tubing, Hose and Fittings)

6.

- FSG 53 (Hardware and Abrasives)

Our DNA marking solution currently protects items in Department of Defense Federal Supply Class (FSC) 5962, Microcircuits. This project will demonstrate our authentication solutions for the other high-risk commodities above. We will perform services such as development, test and evaluation, field trials, and transition to government operations.

On August 28, 2014, our stockholders approved a reverse split of our common stock, in a ratio to be determined by our Board of Directors, of not less than 1-for-40 nor more than 1-for-60. We intend to effectuate the reverse split of our common stock in a ratio to be determined by our Board of Directors prior to consummation of this offering.

On September 11, 2014, we issued and sold promissory notes (the "Notes") in the aggregate principal amount of $1,800,000 and bearing interest at a rate of 12.5% per annum. See "Recent Debt and Equity Financing Transactions — Fiscal 2014" for more information.

Product Research and Development

We anticipate spending approximately $2,400,000 for product research and development activities during the next twelve months. As disclosed elsewhere in this prospectus, on July 14, 2014 we were awarded a two-year Phase II SBIR contract by the U.S. Missile Defense Agency for $975,000, and on August 28, 2014 we were awarded a two-year development contract for $2.97 million by the Office of the Secretary of Defense on behalf of the Defense

Logistics Agency. We also have pilot studies underway for industrial materials and textile companies.

Acquisition of Plant and Equipment and Other Assets

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

Number of Employees

We currently have forty-nine full-time employees and eight part-time employees, including six in management, nine in research and development, one in Life Sciences, four in forensics, seven in quality assurance, five in finance and accounting, eight in operations, nine in sales and marketing, one in human resources, two administrative, two in information services and three in investor relations and

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communications. We expect to increase our staffing dedicated to sales, manufacturing and production, and forensic authentication services. Expenses related to travel, marketing, salaries, and general overhead will be increased as necessary to support our growth in revenue. In order for us to attract and retain quality personnel, we anticipate we will have to offer competitive salaries and benefits to future employees. We anticipate that it may become desirable to add additional full and or part time employees to discharge certain critical functions during the next 12 months. This projected increase in personnel is dependent upon our ability to generate revenues and obtain sources of financing. There is no guarantee that we will be successful in raising the funds required or generating revenues sufficient to fund the projected increase in the number of employees. As we continue to expand, we will incur additional costs for personnel. In June 2012 we began working with Insperity Inc. to help us manage many of our back-end administrative human resources and payroll responsibilities.

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.

Quantitative and Qualitative Disclosures About Market Risk

Interest Rate Risk

We do not believe we are exposed to material direct risks associated with changes in interest rates other that with our cash and cash equivalents. At September 30, 2013 we had $6,360,301 in cash and cash equivalents, the interest income from which is affected by changes in interest rates for the year ended September 30, 2013 was $1,272.

Equity Risk

We are exposed to market risk with respect to the valuation of our warrant liability with a fair value of $2,643,449 at September 30, 2013. The fair value calculation, as discussed in footnote F of the September 30, 2013 consolidated financial statements, is exposed to market volatilities, changes in the price of our common stock and interest rates. Our loss on the change in fair value of the warrant liability for the year ended September 30, 2013 was $7,508,146.

Foreign Exchange Risk

The majority of our revenues and expenses are transacted in U.S. dollars. As a portion of our sales activities is outside of the United States, we have foreign exchange exposure to non-U.S. dollar revenues. However, we do not believe that foreign currency fluctuations materially affect our results of operations but may in the future if we expand our international sales. For the year ended September 30, 2013 our foreign currency transaction gain/loss was deminimis.

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BUSINESS

Overview

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

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

SigNature DNA, SigNature ® T DNA, fiberTyping ®, DNANet ® and digitalDNA ®, our principal anti-counterfeiting and product authentication solutions and our Counterfeit Prevention Authentication Program can be used in numerous industries, including microcircuits and other electronics, cash-in-transit (transport and storage of banknotes), homeland security, textiles and apparel, identity cards and other secure documents, law enforcement, industrial materials, pharmaceuticals, wine, and luxury consumer goods.

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

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

digitalDNA. digitalDNA is a security solution that utilizes the flexibility of mobile communications, the instant accessibility of secure, cloud-based data, and the certainty of DNA to make item tracking and authentication fast, easy and definitive, while providing the opportunity to create a new customer interface. digitalDNA begins with a DNA-secured form of the QR (“quick read”) code or other two dimensional code. A unique identification code is created for each article, and represented in an easy-to-read QR style

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barcode. The product uses forensic authentication of a botanical DNA marker, embedded within a secure QR code, and physically included within the ink used to digitally print the code. Should there ever be a question about the validity of a digitalDNA code, a laboratory-based analysis can be conducted to determine authenticity.

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

Corporate History

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

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

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

Industry Background

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

Counterfeiting is one of the fastest growing economic crimes of modern times. It presents companies, governments and individuals with a unique set of problems. What was once a cottage industry has now become a highly sophisticated network of organized crime that has the capacity to threaten the very fabric of national economies, endanger safety and frequently kill. It devalues corporate reputations, hinders investment, funds terrorism, and costs hundreds of thousands of people their livelihood every year.

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

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Products and Services

Every living organism has a unique DNA code that determines the character and composition of its cells. The core technologies of our business allow us to use the DNA of everyday plants to mark objects in a unique manner that we believe cannot be replicated, and then identify these objects by detecting the absence or presence of the DNA.

SigNature DNA is at the core of all our security solutions. Our SigNature DNA consists of three steps: creating and encapsulating a specific encrypted DNA segment (sometimes with an associated “Optical Array” that allows for the rapid confirmation of the presence of our SigNature DNA), applying it to a product or other item (which may include derivative chemistries of the SigNature DNA that allow the DNA to permanently bind to the targeted substrate), and detecting the presence or absence of the specific segment (sometimes by the use of specific release agents.) The first two steps are controlled exclusively by us and our certified agents to ensure the security of SigNature DNA Markers. Once applied, the presence of any of our SigNature DNA Markers can be detected by us or a customer in a simple spot test, or a sample taken from the product or other item can be analyzed forensically to obtain definitive proof of the presence or absence of a specific type of SigNature DNA Marker (e.g., one designed to mark a particular product).

Signature DNA Markers

Creating a Customer or Product-Specific SigNature DNA Marker

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

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

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

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

SigNature DNA Encryption

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

SigNature DNA Encapsulation

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

SigNature DNA Embedment

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

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SigNature DNA Authentication

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

Broad Applicability and Ingestible

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

SigNature T DNA and fiberTyping

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

SigNature T DNA

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

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

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

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

fiberTyping

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

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

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Products containing premium Extra Long Staple cotton, like Egyptian Giza, Peruvian and American Pima, are recognized by retailers and consumers as being the highest quality cotton in the industry. These refined high end cottons are well regarded due to their durability and quality which, in turn, typically commands premium pricing. In order to preserve the quality and performance of premium cotton products, cotton growers and manufacturers are using state-of-the-art technology, known as fiberTyping ®, to verify that the original Extra Long Staple cotton fibers are used in the finished product. Just as a person's DNA specifies all of their unique qualities, biomaterials typically contain genomic DNA or fragments thereof that can be utilized to authenticate originality. We have developed a proprietary genetic-based assay and protocol to identify DNA markers that are endogenous (internal) to a particular product in order to differentiate between biological strains. Our fiberTyping offering enables our customers and potential clients to cost-effectively give assurance to manufacturers, suppliers, distributors, retailers and end-users that their products are authentic, that they are made from the fibers and textiles as labeled. Biomaterials can now be tracked from field to final purchase guaranteeing the authenticity of the item. As we are testing for innate genomic DNA, we believe these assays cannot be counterfeited. In addition to the global cotton trade, the markets for fiberTyping include biotherapeutics, nutraceuticals, natural foods, wines and fermented alcohols and other natural textiles.

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

DNANet

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

digitalDNA

digitalDNA ® is a security tool that utilizes the flexibility of mobile communications, the instant accessibility of secure, cloud-based data, and the absolute certainty of DNA to make item tracking and authentication fast, easy and definitive, while providing the opportunity to create a new customer interface. digitalDNA is a DNA-secured form of the QR ("quick read") code or other two dimensional code.

A unique identification code is created for each article, and represented in an easy-to-read QR-style barcode. Separately, forensic botanical DNA markers can be physically included within the ink used to digitally print the barcode.

Should there ever be a question about the validity of a digitalDNA code, a laboratory-based analysis can be conducted to determine authenticity.

Counterfeit Prevention Authentication (CPA) Program

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

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Our Strategy

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

Customize and Refine our Solutions to Meet Potential Customers' Needs

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

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

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

Target Potential High-Volume Markets

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

Pursue Strategic Acquisitions and Alliances

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

Target Markets

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

Present Markets:

Microcircuits and other electronics

The global trade in recycled electronics parts is enormous and growing rapidly, driven by a confluence of cost pressures, increasingly complex supply chains and the huge growth in the amount of electronic

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

In 2011, the General Accounting Office (GAO) issued, under the name of an imaginary OEM, open RFPs on the internet for electronic parts (GAO — Report to the Committee on Armed Services — US Senate — February 2012) . All o part numbers requested were either post-production or entirely fictional. The GAO received seven prototype parts in response to its RFP: every single one was counterfeit. The explicit costs of counterfeits to the prime contractors start with loss of revenue, licensing fees, and royalties, which in semiconductors are estimated to be about 2% of TAM (Total Addressable Market) (Jack Stradley, Jack Stradley Consulting, "The Cost of Counterfeiting," p. 6, presentation delivered at Center for Advanced Life Cycle Engineering, Winter, 2012). In the over $300 billion semiconductor global market for 2013 this would amount to $15 billion (Global Chip Revenue Rises in 2013, Reversing Loss from Earlier Year; Memory and Wireless Lead the Way — April 23, 2014). The proliferation of counterfeit parts in the supply chain has reached epidemic heights.

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

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

On September 11, 2014, DLA announced that beginning on December 15, 2014, DLA will no longer issue solicitations requiring suppliers to provide DNA marked FSC 5962 microcircuits. Instead, DLA's Electronic Test Laboratory in Columbus, Ohio will DNA mark all FSC 5962 microcircuits. This change will create a centralized, streamlined DNA marking process within DLA. We are working closely with DLA on a transition plan that may take approximately one year to accomplish.

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

Cash-in-Transit

Cash-in-transit businesses transport and store cash and ATM cassettes. In the U.K. alone, there is an estimated £500 billion being transported each year, or £1.5 billion per day (British Security Industry Association: "Combating Cash Delivery Crime"). The nature of this business makes cash-in-transit an attractive target for criminals and as a result the industry invests in excess of £100 million per year in security equipment and devices. The incidence of cash-in-transit based crime had increased over 170% in London between 2005 and 2008, according to the Metropolitan Police. Governments and banks today face the real challenge of staying ahead of increasingly sophisticated counterfeiting without sacrificing security features and banknote longevity to costs. Since 2008, there have been thirty-two instances where criminals have been convicted of crimes where SigNature DNA forensic evidence has been provided to UK Police to

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assist them to secure convictions. These criminal cases have resulted in 88 offenders being convicted and receiving sentences totaling approximately 448 years of imprisonment. According to the FBI, in 2011 alone, more than $30 million was stolen and just over 100 people were killed or injured in some 5,000 robberies of financial institutions across the nation. (Bank Robbery: “Even in this High-tech Age, Old-fashioned Bank Robberies are Still a Cause for Concern”)

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

Textiles and Apparel

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

Products containing premium Extra Long Staple cotton, like Egyptian Giza, Peruvian and American Pima, are recognized by retailers and consumers as being the highest quality cotton in the industry. These refined high end cottons are well regarded due to their durability and quality which, in turn, typically commands premium pricing. According to Havocscope and the Coalition Against Counterfeiting and Piracy, the market value of counterfeit clothing is $12 billion. In recent years, apparel accounted for 14% of the total counterfeit goods seized by U.S. agencies. Cass Johnson, with the National Council of Textile Organizations says counterfeit fabrics cost a billion dollars every year in lost tariffs to the United States. Britain’s fashion industry is worth around $57 million to the economy, but counterfeit clothing and footwear is estimated to cost designer brands and retailers around $5.4 billion each year.

Our SigNature T DNA anti-counterfeiting system for DNA marking and authentication of wool and cotton fibers is currently in use by our customers. We are now marking product in the United States and abroad to assure integrity of the textile supply chain.

Future Markets:

Homeland Security

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

On September 9, 2010, Homeland Security Newswire published an article “Fake chips from China threaten U.S. military systems” in which a U.S. Chamber of Commerce estimate finds that the global market for counterfeit electronics may be as large as $10 billion. While these references include daunting statistics, the underlying problem has not changed because there was no satisfactory technological solution. Senate hearings in November 2011 revealed the discovery of over 1,800 incidents, totaling over 1 million parts, of counterfeit electronic parts in the defense supply chain (Senate Armed Services Committee Releases Report on Counterfeit Electronic Parts — Monday May 21, 2012). According to the semiconductor industry, counterfeiting results in a $7.5 billion loss in revenue annually as well as a loss of 11,000 U.S. jobs.

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DNA-marking using our SigNature DNA marks, protects the consumer, the government and our service men and women. The manufacturers can ensure that only properly screened, original product goes to users. The same DNA marking can then protect the manufacturers themselves in the form of returned product which they must replace or repair. Broadly applicable, DNA marking could be disseminated as industry best practices and military standards. Our SigNature DNA solution can provide secure, forensic, and cost-effective anti-counterfeiting, anti-piracy and identification solutions to military organizations and other companies supplying microelectronics and similar products globally in need of securing their supply chains.

Law Enforcement

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

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

Identification Cards and Secure Documents

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

- passports;
- lawful permanent resident, or “green” cards;
- visas;
- drivers’ licenses;
- Social Security cards;

- military identification cards;
- national transportation cards;
- security cards for access to sensitive physical locations; and
- other important identity cards, official documents and security-related cards.

Industrial Materials

The global polyolefin market is witnessing high growth on an account of increasing applications, technological advancements, and growing demand in the Asia-Pacific region. Polyolefins are largely used in industries such as film & sheet (food packaging, stretch & shrink films, trash bags, etc.), injection molding

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(packaging, automotive & transportation, consumables & electronics, building & construction, etc.), blow molding (blow molded bottles for juice, milk, motor oil, laundry detergents, etc.), and fibers & tapes (building & construction, etc.). Green polyolefins (mainly bio-polyethylene & bio-polypropylene), possess similar properties as that of petroleum-based polyolefin, are gaining popularity. (Polyolefin Markets by Types and Geography — Global Trends and Forecasts to 2018) Companies sell premium-quality plastic products, manufactured under the highest level of quality control and environmental safety control. Such high value products are prime candidates for counterfeiting via addition of cheap surrogates, manufactured as a low quality product with poor environmental safety control. Such counterfeit products would thus command premium pricing while compromising the prestige of the branded products. According to a new technical market research report, Global Market For Polyolefin Resins (PLS052A), from BCC Research, the global size of the polyolefin resins market was valued at $151.1 billion in 2011. Total market value is expected to reach $187.5 billion in 2016 after increasing at a five-year compound annual growth rate (CAGR) of 4.4%.

Pharmaceuticals

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

Based on this growing threat, many countries have started to address vulnerabilities in the supply chain by enacting legislation which, among other things, requires a comprehensive system, most often referred to as serialization or in the United States as e-Pedigree (electronic pedigree), initially in California. In its basic form, the regulation states that 50% of all “dangerous drugs” (defined as all prescription drugs) that are distributed in California must be serialized and have an electronic pedigree by January 1, 2015; 100% by January 1, 2016.

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

Consumer Products

Counterfeit items are a significant and growing problem with all kinds of consumer packaged goods, especially in the retail and apparel industries. According to the International Trademark Association, up to 22% of all branded apparel and footwear sold worldwide is counterfeit and Havocscope values the counterfeit clothing market at $12 billion (Havocscope — Counterfeit Clothing Market Value: $12 billion).

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We have developed and are currently marketing a number of solutions aimed at brand protection and authentication for the retail and apparel industries, including the clothing, accessories, fragrances and cosmetics segments. Our SigNature DNA platform ingredient can be used by manufacturers in these industries to combat counterfeiting and piracy of primary, secondary and tertiary packaging, as well as the product itself, and to track products that have been lost in transit, whether misplaced or stolen.

Fine Wine

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

- Verified authenticity increases potential customers' confidence in the product and their purchase decision;
- For the vintner, the SigNature solutions can strengthen brand support and recognition, and offers the potential for improved marketability and sales; and
- SigNature DNA Markers can be embedded in bottles, labels, or both at the winery, and easily authenticated at the location of the wine distributor or auctioneer.

Art and Collectibles

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

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

- A signed certificate or statement of authenticity from a respected authority or expert on the artist;
- An exhibition or gallery sticker attached to the art or collectible;
- An original sales receipt;
- A film or recording of the artist talking about the art or collectible;

- An appraisal from a recognized authority or expert on the art or collectible; and
- Letters or papers from recognized experts or authorities discussing the art or collectible.

Sales and Marketing

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

Research and Development

Our research and development efforts are primarily focused on incorporating DNA into carriers (such as ink or textile treatments), and authenticating DNA from the marked substrates. As part of this effort, we typically conduct feasibility and pilot testing to ensure that DNA application methods are compatible with the customer's manufacturing and logistic processes, and that they can be implemented in a cost effective manner. In some cases, the DNA application methods may undergo wash-out and/or adherence tests to

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ensure that DNA can be authenticated even if it is subjected to aggressive removal techniques. We are also actively involved in identifying new formulation development, and new application methods that provide even better adhesion of DNA to substrates, and more homogeneous distribution of the DNA onto the surface. In short, we have considerable experience working with a wide range of carriers and substrates, and authenticating them even years after they have been applied onto the surface. We believe that our continued development of new and enhanced technologies relating to our core business is essential to our future success. We spent $692,480 on research and development activities for the year ended September 30, 2013 and $432,669 for the year ended September 30, 2012.

Raw Materials and Suppliers

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

Manufacturing

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

Distribution of our Products and Commercial Agreements

Our products are distributed the following ways:

- directly to the customer;
- to a designated third party trained to mark parts for military suppliers (at the request of the customer); and
- through a licensed distributor.

As of September 30, 2014, we entered into agreements with a few dozen customers to use Signature DNA markers in connection with the DLA program. These include customers at all nodes in the supply chain, including prime contractors, authorized distributors, independent distributors and manufacturers. Over 500,000 electronic components have been marked to this point.

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

Those FSGs are, in order of risk to DLA:

1. FSG 59 (Electrical and Electronic Equipment Components)
2. FSG 31 (Bearings)
3. FSG 25 (Vehicular Equipment Components)

4.

- FSG 29 (Engine Accessories)

5.

- FSG 47 (Pipe, Tubing, Hose and Fittings)

6.

- FSG 53 (Hardware and Abrasives)

Our DNA marking solution currently protects items in DoD Federal Supply Class (FSC) 5962, Microcircuits. This project will demonstrate our authentication solutions for the other high-risk commodities above.
We will perform services such as development, test and evaluation, field trials, and transition to government operations.
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U.S. Missile Defense Agency. On July 14, 2014, we were awarded a Phase II SBIR contract by the U.S. Missile Defense Agency to perform research and development for avoidance of counterfeit parts by expanding the scope and scale of its existing SigNature DNA ® technology platform established in its Phase I SBIR contract for Federal Supply Class 5962 electronic components, and by developing an optical reader. The contract provides for monthly payments to us totaling approximately $975,000 over a two year period.

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

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

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

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

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

Defense Logistics Agency. On June 17, 2011, we received approval and permission to disclose from the Defense Logistics Agency of the U.S. Department of Defense a time and material subcontract (the "Subcontract") that we entered into on June 2, 2011 with the Logistics Management Institute ("LMI"). Under the terms of the Subcontract, we will perform work and services for LMI and the DLA relating to a program to demonstrate the functional, technical and business viability of DNA marking technology as an anti-counterfeiting measure by using it in the DLA microcircuit supply chain. The program was divided into six tasks and involves the preparation, implementation and evaluation of marking materials for microcircuit chips and packages, creation of a business case analysis, development of a pricing and transition plan and identification of feasible techniques to apply DNA marks in conjunction with laser marking. The period of performance of the Subcontract was from May 26, 2011 through November 26, 2012. We received payment of $913,400 under this Subcontract through November 26, 2012, when the contract expired.

DivineRune. We acquired rights to certain software and intellectual property pursuant to an agreement we entered into with DivineRune Inc., a secure cloud-computing specialist, on January 25, 2012. DivineRune was issued a 3 year warrant to pursuant one million shares of our common stock at an exercise price of $0.071 per share vesting in full on the first anniversary of the date of grant as compensation for a license to DivineRune's patent portfolio. We will also share revenues on any future sales of products generated as a result of this agreement. We expect that the partnership will enhance and extend our core anti-counterfeiting, anti-diversion, and security systems into the digital track-and-trace sphere. James A. Hayward, our President, Chairman and Chief Executive Officer, and Yacov Shamash, a member of our Board of Directors, were among the early investors in DivineRune.

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

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

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Properties

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

Competition

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

Some examples of competing security products include:

- fingerprint scanner (a system that scans fingerprints before granting access to secure information or facilities);
- voice recognition software (software that authenticates users based on individual vocal patterns);
- cornea scanner (a scanner that scans the iris of a user's eye to compare with data in a computer database);
- face scanner (a scanning system that uses complex algorithms to distinguish one face from another);
- integrated circuit chip and magnetic strips (integrated circuit chips that receive and, if authentic, send a correct electric signal back to the reader, and magnetic strips that contain information, both of which are common components of debit and credit cards);
- optically variable microstructures (these include holograms, which display images in three dimensions and are generally difficult to reproduce using advanced color photocopiers and printing techniques, along with other devices with similar features);

- elemental taggants and fluorescence (elemental taggants are various unique substances that can be used to mark products and other items, are revealed by techniques such as x-ray fluorescence); and
- radioactivity and rare molecules (radioactive substances or rare molecules which are uncommon and readily detected).

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

- product performance, features and liability;
- price;
- timing of product introductions;
- ability to develop, maintain and protect proprietary products and technologies;

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- sales and distribution capabilities;
- technical support and service;
- brand loyalty;
- applications support; and
- breadth of product line.

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

Proprietary Rights

We believe that our 23 patents, 34 patents pending, 29 registered trademarks, and 2 registered trademarks pending, and our trade secrets, copyrights and other intellectual property rights are important assets for us. Our patents will expire at various times between 2020 and 2029. The duration of our trademark registrations varies from country to country. However, trademarks are generally valid and may be renewed indefinitely as long as they are in use and/or their registrations are properly maintained.

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

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

Employees

We currently have 49 full-time employees and eight part-time employees, including six in management, nine in research and development, one in life sciences, four in forensics, seven in quality assurance, five in finance and accounting, eight in operations, nine in sales and marketing, one in human resources, two administrative, two in information services and three in investor relations and communications. We expect to increase our staffing dedicated to sales, manufacturing and production, and forensic authentication services. Expenses related to travel, marketing, salaries, and general overhead will be increased as necessary to support our growth in revenue. In order for us to attract and retain quality personnel, we anticipate we will have to offer competitive salaries and benefits to future employees. We anticipate that it may become desirable to add additional full and or part time employees to discharge certain critical functions during the next 12 months. This projected increase in personnel is dependent upon our ability to generate revenues and obtain sources of financing. There is no guarantee that we will be successful in raising the funds required or

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generating revenues sufficient to fund the projected increase in the number of employees. As we continue to expand, we will incur additional costs for personnel. In June 2012 we began working with Insperity Inc. to help us manage many of our back-end administrative human resources and payroll responsibilities.

Legal Proceedings

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

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

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

On June 11, 2014, SmartWater filed a motion for an order dismissing its remaining patent infringement claims against us with prejudice. On July 18, 2014, we filed a request for an award of attorneys’ fees. On September 29, 2014, the Court dismissed SmartWater’s claims with prejudice and denied our request for attorneys’ fees.

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MANAGEMENT

DIRECTORS AND EXECUTIVE OFFICERS

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

Name	Age	Title	Board of Directors
James A. Hayward	61	Chief Executive Officer, President, and Chairman of the Board	Director
John Bitzer, III	53		Director
Charles Ryan	50		Director
Yacov Shamash	64		Director
Sanford R. Simon	71		Director
Karol Gray	61	Chief Financial Officer	
Judith Murrah	55	Chief Information Officer	
Ming-Hwa Benjamin Liang	50	Secretary and Strategic Technology Development Officer	

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

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

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

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

Director — John Bitzer, III

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

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

Director — Charles Ryan

Dr. Charles Ryan joined the Board of Directors on August 2011. Dr. Ryan is the Sr. Vice President, and Chief Intellectual Property Counsel at Forest Laboratories ("Forest"), where he has been employed since 2003. Forest, a wholly-owned subsidiary of Actavis, with a market capitalization of nearly $10 billion, develops and markets pharmaceutical products in a variety of therapeutic categories including central nervous system, cardiovascular, anti-infective, respiratory, gastrointestinal, and pain management medicine. Dr. Ryan has over 18 years experience in managing all aspects of intellectual property litigation, conducting due diligence investigations and prosecuting patent and trademark applications in the pharmaceutical and biotechnology industries. Dr. Ryan earned a doctorate in oral biology and pathology from Stony Brook University and a law degree from Western New England University.

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

Director — Yacov Shamash

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

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

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

Director — Sanford R. Simon

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

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

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

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Chief Financial Officer — Karol Gray

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

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

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

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

Chief Information Officer — Judith Murrah

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

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

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

Board of Directors Structure and Committee Composition

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

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

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

Chairperson

Member

(I) Independent director

Audit Committee

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

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

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

Compensation Committee

Our compensation committee is composed of John Bitzer, III, Yacov Shamash (Chairperson) and Charles Ryan. Ms. Gray resigned as a member of the Compensation Committee on August 20, 2013 in connection with her appointment as Chief Financial Officer effective October 14, 2013. The compensation committee reviews and approves salaries and bonuses for all officers, administers options outstanding under our stock incentive plan, provides advice and

recommendations to the Board regarding directors' compensation and carries out the responsibilities required by SEC rules. The compensation committee believes that its processes and oversight should be directed toward attracting, retaining and motivating

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employees and non-employee directors to promote and advance the interests and strategic goals of the Company. As requested by the compensation committee, the Chief Executive Officer will provide information and may participate in discussion regarding compensation for other executive officers. The compensation committee does not utilize outside compensation consultants but considers other general industry information and trends if available.

Nominating Committee

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

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

Compensation Committee Interlocks and Insider Participation

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

Code of Ethics

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

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

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EXECUTIVE COMPENSATION

Compensation Discussion & Analysis

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

Our Executive Compensation Philosophy and Objectives

General

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

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

- Develop a culture that embodies a commitment for our business, creative contribution and a drive to achieve established goals and performance objectives;
- Provide leadership to the organization in such a way as to maximize the results of our business operations;
- Lead us by demonstrating forward thinking in the operation, development and expansion of our business;
- Effectively manage organizational resources to derive the greatest value possible from each dollar invested; and
- Take strategic advantage of the market opportunity to expand and grow our business and revenues.

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

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

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

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

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

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

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

Determination of Executive Compensation Awards

The compensation committee establishes and monitors the basic philosophy governing the compensation of the Chief Executive Officer. On an annual basis, the compensation committee reviews and makes recommendations to the Board with respect to the compensation of the Chief Executive Officer including incentive compensation plans and equity-based plans. Historically, compensation decisions for all other of our executive officers were approved by our Board of Directors upon the recommendation of our compensation committee, which in turn relied upon the recommendation of our Chief Executive Officer. We have traditionally placed significant emphasis on the recommendation of our Chief Executive Officer with respect to the determination of executive compensation (other than his own), in particular with respect to the determination of base salary, cash incentive and equity incentive awards, and typically followed such recommendations as presented by our Chief Executive Officer. As we continue to grow, we will make the transition to have our compensation committee be solely responsible for administering our executive compensation program, although we expect to continue to rely, in part, upon the advice and recommendations of our Chief Executive Officer, particularly with respect to those executive officers that report directly to him. The compensation committee's composition and oversight of our executive compensation program is described in more detail below in the section entitled "Compensation Committee."

For purposes of determining our executive officer compensation in fiscal 2014 and in prior fiscal years, we considered the following factors: our understanding of the amount of compensation generally paid by similarly situated companies to their executives with similar roles and responsibilities; the roles and responsibilities of our executives; the individual experience and skills of, and expected contributions from, our executives; the amounts of compensation being paid to our other executives; our executives' historical compensation at our company; an assessment of the professional effectiveness and capabilities of the executive officer; and the performance of the executive officer against the corporate and other scorecards used to determine incentive compensation. While we have not used any

formula to determine compensation based on these factors, we have placed the most emphasis in determining compensation on our understanding of the amount of compensation generally paid by similarly situated companies to their executives with similar roles and responsibilities and the subjective assessment of the professional

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effectiveness and capabilities of the executive officer. Our understanding of the amount of compensation generally paid by similarly situated companies was based on our compensation committee's and our Chief Executive Officer's own business judgment and collective experience in such matters.

Base Salary

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

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

Cash bonuses

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

Long-term Stock-Based Compensation

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

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

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

Stock options are granted to our executive officers in amounts determined by the Compensation Committee in its discretion. Stock grants have not been formula-based, but instead have historically been granted taking into account a mixture of the following qualitative factors: the executive's level of responsibility; the competitive market for the executive's position; the executive's potential contribution to our growth; and the subjective assessment of the

professional effectiveness and capabilities of these executives.

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Benefits

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

- health and dental insurance;
- life insurance;
- short-and long-term disability; and
- 401(k) Plan (currently there is no employer matching)

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

Summary Compensation Table

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

	Year	Salary ($) (c)	Bonus ($) (d)	Stock Awards ($) (e)	Option Awards ($) (f) (1)	Non-Equity Incentive Plan Compensation ($) (g)	Change in Pension Value and Nonqualified Deferred Compensation Earnings ($) (h)	All Other Compensation ($) (i)	Total ($) (j)
James A. Hayward Chairman, President and CEO	2014	343,269	—	—	3,530,437	—			3,873,706
	2013	319,974	150,000	—	—	—	—	—	469,974
	2012	242,334	—	—	—	—	—	—	242,334
Karol K. Gray CFO	2014	310,962	—	—	207,043				518,005
	2013	—	—	—	—	—	—	—	—
	2011	—	—	—	—				