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:

Merrill M. Kraines, Esq. Fulbright & Jaworski LLP (a Member Firm of Norton Rose Fulbright) 666 Fifth Avenue New York, New York 10103 Telephone: 212-318-3261 Facsimile: 212-318-3400	James M. Jenkins, Esq. Alexander R. McClean, Esq. Harter Secrest & Emery LLP 1600 Bausch & Lomb Place Rochester, New York 14604 Telephone: 585-232-6500 Facsimile: 585-232-2152

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 exercis 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 Jur**	
	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 strative	11,198,505	7,615,734	8,388,873	7,189,020	6,637,672	10,093,631	8,516,
h and oment	692,480	432,669	268,876	75,961	135,405	1,085,416	509,13
ation	321,074	313,940	367,556	371,914	418,128	325,448	105,10
ation perating es	12,212,059	8,362,343	9,025,305	7,636,895	7,191,205	11,504,495	9,130,
FROM ATIONS	(10,175,837)	(6,507,649)	(8,056,457)	(7,117,051)	(6,896,043)	(9,428,797)	(7,823
ncome e):							
income e), net	1,272	(643,063)	(2,458,667)	(792,549)	(1,182,695)	784	738
xpense) , net	(3,761)	—	—	—	12,023,888	130,186	—
change alue of liability	(7,508,146)	—	—	—	—	(1,663,316)	(6,145
ncome n 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 Jur	
OSS)							
ME							
ss)							
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.

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:

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- nationalization of private enterprises and assets;

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- 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;

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

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• credit risks;

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• currency fluctuations;

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• tariff and tax increases;

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• export and import restrictions and restrictive regulations of foreign governments;

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• shipping products during times of crisis or wars; and

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• 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:

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- Our CEO has appointed a Sarbanes-Oxley project leadership team, consisting of our CFO and our Controller, that are overseeing the project;

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- 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

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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