APPLIED DNA SCIENCES INC
Form S-1/A
April 21, 2008

As filed with the Securities and Exchange Commission on April 21, 2008
Registration No. 333-122848

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

Amendment No. 9 to Form SB-2 on
FORM S-1
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

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

Nevada	2836	59-2262718
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

25 Health Sciences Drive, Suite 113
Stony Brook, New York 11790
(631) 444-6862
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

James A. Hayward, Ph.D., Sc.D., Chief Executive Officer
APPLIED DNA SCIENCES, INC.
25 Health Sciences Drive, Suite 113
Stony Brook, New York 11790
(631) 444- 6370

(Name, address, including zip code, and telephone number, including area code, of agent for service)
Copies to:
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666 Fifth Avenue
New York, New York 10103
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Approximate date of commencement of proposed sale to public: As soon as practicable after this Registration Statement becomes 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 of 1933, as amended (the "Securities Act"), check the following box. ý

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. o

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. o

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. o

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 12b2 of the Exchange Act.

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

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered	Proposed maximum offering price per share (1)	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee
Common stock, $.001 par value per share	7,220,324	$ 0.12	$ 866,439	$ 27
Common stock, $.001 par value, issuable upon exercise of Warrants exercisable at $0.60 per share	1,207,500	$ 0.12	$ 144,900	$ 5
Common stock, $.001 par value, issuable upon exercise of Warrants exercisable at $0.75 per share	14,742,000	$ 0.12	$ 1,769,040	$ 55
Total	$ 23,169,824		$ 2,780,379	$ 86(2)

(1) Estimated solely for purposes of calculating the registration fee in accordance with Rule 457(c) and Rule 457(g) under the Securities Act of 1933, using the average of the high and low price as reported on The Over The Counter Bulletin Board on April 18, 2008, which was $0.12 per share.

(2) A filing fee of $6,639.68 was previously paid by the Registrant.

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 the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. THIS PROSPECTUS IS INCLUDED IN THE REGISTRATION STATEMENT THAT WAS FILED BY APPLIED DNA SCIENCES, INC. WITH THE SECURITIES AND EXCHANGE COMMISSION. THE SELLING STOCKHOLDERS MAY NOT SELL THESE SECURITIES PURSUANT TO THIS REGISTRATION STATEMENT UNTIL THE REGISTRATION STATEMENT BECOMES 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 SALE IS NOT PERMITTED.

PRELIMINARY PROSPECTUS SUBJECT TO COMPLETION, DATED APRIL 21, 2008

APPLIED DNA SCIENCES, INC.
23,169,824 SHARES OF
COMMON STOCK

This prospectus relates to the resale by the selling stockholders of up to 23,169,824 shares of our common stock, including up to 15,949,500 shares issuable upon the exercise of common stock purchase warrants and 7,220,324 shares of common stock. The selling stockholders may sell common stock from time to time in the principal market on which the stock is traded at the prevailing market price or in negotiated transactions. We will pay the expenses of registering these shares.

Our common stock is registered under Section 15(d) of the Securities Exchange Act of 1934, as amended, and is listed on The Over The Counter Bulletin Board under the symbol “APDN.” The last reported sales price per share of our common stock as reported by The Over The Counter Bulletin Board on April 18, 2008 was $0.12 .

Investing in these securities involves significant risks. See “Risk Factors” beginning on page 3.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this Prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is , 2008.

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You should rely only on the information contained or incorporated by reference in this prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus. 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 of any sale of the common stock.

In this prospectus "Applied DNA," "we," "us" and "our" refer to Applied DNA Sciences, Inc. and its subsidiaries. Applied DNA and SigNature are the subject of our trademark applications pending registration with the United States Patent and Trademark Office. This prospectus contains other product names, trade names and trademarks of Applied DNA Sciences, Inc. and of other organizations.

PROSPECTUS SUMMARY

The following summary highlights selected information contained in this prospectus. This summary does not contain all the information you should consider before investing in the securities. Before making an investment decision, you should read the entire prospectus carefully, including the "risk factors" section, the financial statements and the notes to the financial statements.

APPLIED DNA SCIENCES, INC.

We provide botanical DNA encryption, embedment and authentication solutions that can help protect companies, governments and consumers from counterfeiting, fraud, piracy, product diversion, identity theft, and unauthorized intrusion into physical locations and databases. Our SigNature Program provides a secure, accurate and cost-effective means for our customers to incorporate our SigNature DNA Markers in, and then quickly and reliably authenticate and identify, a broad range of items such as artwork and collectibles, fine wine, consumer products, digital media, financial instruments, identity cards and other official documents. Having the ability to reliably authenticate and identify counterfeit versions of such items enables companies and governments to detect, deter, interdict and prosecute counterfeiting enterprises and individuals.

Our SigNature Program enables our customers to cost-effectively:

- give assurance to manufacturers, suppliers, distributors, retailers and end-users that their products are authentic and can be forensically authenticated;
- integrate our SigNature DNA Markers with existing security solutions such as barcodes, radio frequency identification (RFID) tags, holograms, microchips and other security measures; and
- add value to the "bottom-line" by helping to diminish product diversion and counterfeiting.

Counterfeit and diverted products continue to pose a significant and growing problem with consumer packaged goods, especially for prestige and established brands worldwide. Piracy, identity theft and forged documents and items are also highly prevalent in vertical markets such as digital media, fine art, luxury goods, and alcoholic beverages. Key aspects of our strategy include:

- continuing to improve and customize our solution to meet our current and potential customers' needs;
- continuing to develop and enhance our existing DNA marker authentication technologies;
- expanding our customer base both domestically and abroad by targeting high volume markets; and
- augmenting our competitive position through strategic acquisitions and alliances.

We have also begun to develop and manufacture DermalRx, an ingredient for use in skin care products, which allows for exfoliation without the irritation or inflammation associated with chemical peeling.

For the year ended September 30, 2007, we generated revenues of $121,920 and had net losses of $13.3 million. Our registered independent certified public accountants have stated in their report dated January 14, 2008, that we have incurred operating losses in the last two years, and that we are dependent upon management's ability to develop profitable operations. These factors among others may raise substantial doubt about our ability to continue as a going concern.

Our principal offices are located at 25 Health Sciences Drive, Suite 113, Stony Brook, New York 11790, and our telephone number is (631) 444-6370. We are a Nevada corporation. We maintain a website at www.adnas.com. The information contained on that website is not deemed to be a part of this prospectus.

THE OFFERING

Common stock offered by selling stockholders	Up to 23,169,824 shares, including the following:
	- 7,220,324 shares of common stock issued upon the conversion of the promissory notes issued in connection with the January and February 2005 offering;
	- up to 1,487,500 shares of common stock issuable upon the exercise of common stock purchase warrants at an exercise price of $.60 per share;
	up to 1,207,500 shares of common stock issuable upon the exercise of common stock purchase warrants at an exercise price of $.75 per share;

	This number represents approximately 12% of our current outstanding stock.
Common stock to be outstanding after the offering	Up to 208,086,103 shares
Use of proceeds	We will not receive any proceeds from the sale of the common stock. However, we will receive the sale price of any common stock we sell to the selling stockholders upon exercise of the warrants. We expect to use the proceeds received from the exercise of the warrants, if any, for working capital, including general corporate purposes.
The Over The Counter Bulletin Board symbol	APDN

The above information regarding common stock to be outstanding after the offering is based on 192,136,603 shares of common stock outstanding as of April 18, 2008, and assumes the subsequent exercise of warrants by our selling stockholders.

RISK FACTORS

This investment has a high degree of risk. Before you invest you should carefully consider the risks and uncertainties described below and the other information in this prospectus. If any of the following risks actually occur, our business, operating results and financial condition could be harmed and the value of our stock could go down. This means you could lose all or a part of your 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 botanical DNA encryption, embedment and authentication products and services, which are based on technologies that we acquired in July 12, 2005 from Biowell Technology, Inc. ("Biowell"). We first derived revenue from this model in the second calendar quarter of 2006, which was insignificant. Prior to the July 12, 2005 acquisition, our operations consisted principally of providing marketing and business development services to Biowell. As a result, we have a very limited operating history for you to evaluate in assessing our future prospects. In fiscal 2007 we transitioned from a developmental stage to an operating company. Our operations since inception have not produced significant 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 revenues in the future, prior to our introduction of any new products, we will derive all such revenues from the sale of botanical DNA encryption, encapsulation, embedment and authentication products and services, which is an immature industry. You must consider our business and prospects in light of the risks and difficulties we will encounter as an early-stage company in a new and rapidly evolving industry. We may not be able to successfully address these risks and difficulties, which could significantly harm our business, operating results, and financial condition.

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

We incurred net losses of $13.3 million for the year ended September 30, 2007 and $2.4 million for the year ended September 30, 2006. For the three months ended December 31, 2007, we incurred a net loss from operations of $2,132,744. These net losses have principally been the result of the various costs associated with our selling, general and administrative expenses as we commenced operations, acquired, developed and validated technologies, began marketing activities, and our interest expense on notes and warrants we issued to obtain financing. Our operations are subject to the risks and competition inherent in a company that moved from the development stage to an operating company. We may not generate sufficient revenues from operations to achieve or sustain profitability on a quarterly, annual or any other basis in the future. Our revenues and profits, if any, will depend upon various factors, including whether our existing products and services or any new products and services we develop will achieve any level of market acceptance. If we continue to incur losses, our accumulated deficit will continue to increase, which might significantly impair our ability to obtain additional financing. As a result, our business, results of operations and financial condition would be significantly harmed, and we may be required to reduce or terminate our operations.

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

We believe that our existing capital resources will enable us to fund our operations until approximately September 2008. We believe we will be required to seek additional capital to sustain or expand our prototype and sample manufacturing, and sales and marketing activities, and to otherwise continue our business operations beyond that

date. We have no commitments for any future funding, and may not be able to obtain additional financing or grants on terms acceptable to us, if at all, in the future. If we are unable to obtain additional capital this would restrict our ability to grow and may require us to curtail or discontinue our business operations. Additionally, while a reduction in our business operations may prolong our ability to operate, that reduction would harm our ability to implement our business strategy. If we can obtain any equity financing, it may involve substantial dilution to our then existing shareholders.

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

In their report dated January 14, 2008, our independent auditors stated that our financial statements for the year ended September 30, 2007 were prepared assuming that we would continue as a going concern, and that they have substantial doubt about our ability to continue as a going concern. Our auditors' doubts are based on our incurring net losses of $13.3 million for the year ended September 30, 2007. We continue to experience net operating losses. Our ability to continue as a going concern is subject to our ability to generate a profit and/or obtain necessary funding from outside sources, including by the sale of our securities, obtaining loans from financial institutions, or obtaining grants from various organizations or governments, where possible. Our continued net operating losses and our auditors' doubts increase the difficulty of our meeting such goals and our efforts to continue as a going concern may not prove successful.

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 or no market acceptance of our botanical DNA encryption, encapsulation, embedment and authentication products and services to date. Some of the factors that will affect whether we achieve market acceptance of our solutions include:

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

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

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

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

Our success depends to a significant extent upon the continued service of Dr. James A. Hayward, one of our directors, our President and Chief Executive Officer; and Dr. Benjamin Liang, our Secretary and Strategic Technology Development Officer. We do not have employment agreements with Drs. Hayward or 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 SigNature program are very competitive, and we may be unable to continue to compete effectively in this industry in the future.

The principal markets for our SigNature Program are intensely competitive. We compete with many existing suppliers and new competitors continue to enter the market. Many of our competitors, both in the United States and elsewhere, are major pharmaceutical, chemical and biotechnology companies, or have strategic alliances with such companies, and many of them have substantially greater capital resources, marketing experience, research and development staff, and facilities than we do. Any of these companies could succeed in developing products that are more effective than the products that we have or may develop and may be more successful than us in producing and marketing their existing products. Some of our competitors that operate in the anti-counterfeiting and fraud prevention markets include: Authentix, Collectors Universe Inc., Data Dot Technology, Digimarc Corp., DNA Technologies, Inc., ID Global, Informium AG, Inksure Technologies, Kodak, L-1 Identity Solutions, Manakoa, OpSec

Security Group, SmartWater Technology, Inc., Sun Chemical Corp, and Tracetag.

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

- product performance, features and liability;
- price;
- timing of product introductions;

ability to develop, maintain and protect proprietary products and technologies;
sales and distribution capabilities;
technical support and service;
brand loyalty;
applications support; and
breadth of product line.

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

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

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

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

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

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

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

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

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

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

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

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

Any growth in our operations, if any, will place a significant strain on our current management resources. To manage such growth, we would need to improve our:

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

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

Although we currently only have operations within the United States, if we were to acquire an international operation; we would face additional risks, including:

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

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

Recruiting and retaining qualified scientific and production personnel to perform and manage prototype, sample, and product manufacturing and business development personnel to conduct business development are critical to our success. In addition, our desired growth and expansion into areas and activities requiring additional expertise, such as

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

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

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

Intellectual property litigation could harm our business.

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

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

Because some patent applications in the United States may be maintained in secrecy until the patents are issued, because patent applications in the United States and many foreign jurisdictions are typically not published until eighteen months after filing, and because publications in the scientific literature often lag behind actual discoveries, we cannot be certain that others have not filed patent applications for technology covered by our or our licensor's issued patents or pending applications or that we or our licensors were the first to invent the technology. Our competitors may have filed, and may in the future file, patent applications covering technology similar to ours. Any such patent application may have priority over our or our licensors' patent applications and could further require us to

obtain rights to issued patents covering such technologies. If another party has filed a United States patent application on inventions similar to ours, we may have to participate in an interference proceeding declared by the United States Patent and Trademark Office to determine priority of invention in the United States. The costs of these proceedings could be substantial, and it is possible that such efforts would be unsuccessful, resulting in a loss of our United States patent position with respect to such inventions.

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

Accidents related to hazardous materials could adversely affect our business.

Some of our operations require the controlled use of hazardous materials. Although we believe our safety procedures comply with the standards prescribed by federal, state, local and foreign regulations, the risk of accidental contamination of property or injury to individuals from these materials cannot be completely eliminated. In the event of an accident, we could be liable for any damages that result, which could seriously damage our business and results of operations.

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

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

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

We generally may be subject to claims made by and required to respond to litigation brought by customers, former employees, former officers and directors, former distributors and sales representatives, and vendors and service providers. We have faced such claims and litigation in the past and we cannot assure that we will not be subject to claims in the future. In the event that a claim is successfully brought against us, considering our lack of revenue and the losses our business has incurred for the period from our inception to December 31, 2007, this could result in a significant decrease in our liquidity or assets, which could result in the reduction or termination of our business.

Our failure to have our Registration Statement on Form S-1 declared effective by the SEC could harm our ability to seek financing.

On October 15, 2005 we filed a registration statement on Form SB-2 (now on Form S-1) with the SEC registering for resale common stock issued upon conversion of convertible promissory notes and underlying warrants. In response to the SEC's comment and review process we have filed nine amendments to the registration statement to date. If the registration statement is declared effective, we are obligated to file additional registration statements with respect to subsequent private placements of common stock issued upon convertible promissory notes and underlying warrants. Our failure to have the registration statement declared effective on a timely basis may harm our ability to seek financing in the future.

We are obligated to pay liquidated damages as a result of our failure to have our registration statement declared effective prior to June 15, 2005, and any payment of liquidated damages will either result in depletion of our limited working capital or issuance of shares of common stock which would cause dilution to our existing shareholders.

Pursuant to the terms of a registration rights agreement with respect to common stock underlying convertible notes and warrants we issued in private placements in November and December, 2003, December, 2004, and January and February, 2005, if we did not have a registration statement registering the shares underlying these convertible notes and warrants declared effective on or before June 15, 2005, we are obligated to pay liquidated damages in the amount of 3.5% per month of the face amount of the notes, which equals $367,885, until the registration statement is declared effective. At our option, these liquidated damages can be paid in cash or unregistered shares of our common stock. To date we have decided to pay certain of these liquidated damages in common stock, although any future payments of liquidated damages may, at our option, be made in cash. If we decide to pay such liquidated damages in cash, we would be required to use our limited working capital and potentially raise additional funds. If we decide to pay the liquidated damages in shares of common stock, the number of shares issued would depend on our stock price at the time that payment is due. Based on the closing market prices of $0.66, $0.58, $0.70, $0.49, $0.32 and $0.20 for our common stock on July 15, 2005, August 15, 2005, September 15, 2005, October 17, 2005, November 15, 2005 and December 15, 2005, respectively, we issued a total of 3,807,375 shares of common stock in liquidated damages from August, 2005 to January, 2006 to persons who invested in the January and February, 2005 private placements. The issuance of shares upon any payment by us of further liquidated damages will have the effect of further diluting the proportionate equity interest and voting power of holders of our common stock, including investors in this offering.

We paid liquidated damages in the form of common stock only for the period from June 15, 2005 to December 15, 2005, and only to persons who invested in the January and February, 2005 private placements. We believe that we have no enforceable obligation to pay liquidated damages to holders of any shares we agreed to register under the registration rights agreement for periods after the first anniversary of the date of issuance of such shares, since they were eligible for resale under Rule 144 of the Securities Act during such periods, and such liquidated damages are grossly inconsistent with actual damages to such persons. Nonetheless, as of December 31, 2007 we have accrued approximately $11.75 million in penalties representing further liquidated damages associated with our failure to have the registration statement declared effective by the deadline, and have included this amount in accounts payable and accrued expenses.

We initially filed our registration statement on Form SB-2 with the SEC on February 15, 2005. We filed Amendment No.9 to the Registration Statement on Form SB-2 on Form S-1 on April 21, 2008 and the SEC's review and comment process is continuing. We can give no estimate as to when the registration statement will be declared effective. Our failure to have the registration statement declared effective has and may continue to adversely impact our ability to secure financing.

Matter voluntarily reported to the Securities and Exchange Commission

During the months of March, May, July and August 2005, we issued a total of 8,550,000 shares of our common stock to certain employees and consultants pursuant to the 2005 Incentive Stock Plan. We engaged our outside counsel to conduct an investigation of the circumstances surrounding the issuance of these shares. On April 26, 2006, we voluntarily reported the findings from this investigation to the SEC, and agreed to provide the SEC with further information arising from the investigation. We believe that the issuance of 8,000,000 shares to employees in July 2005 was effectuated by both our former President and our former Chief Financial Officer/Chief Operating Officer without approval of our board of directors. These former officers received a total of 3,000,000 of these shares. In addition, it appears that the 8,000,000 shares issued in July 2005, as well as an additional 550,000 shares issued to employees and consultants in March, May and August 2005, were improperly issued without a restrictive legend stating that the shares could not be resold legally except in compliance with the Securities Act of 1933, as amended. The members of the Company's management who effectuated the stock issuances no longer work for the Company. These shares were not registered under the Securities Act of 1933, or the securities laws of any state, and we believe that certain of these shares may have been sold on the open market, though we have been unable to determine the magnitude of such sales. Since our voluntary report of the findings of our internal investigation to the SEC on April 26, 2006, we have received no communication from the SEC or any third party with respect to this matter. If violations of securities laws occurred in connection with the resale of certain of these shares, the employees and consultants or persons who purchased shares from them may have rights to have their purchase rescinded or other claims against us for violation of securities laws, which could harm our business, results of operations, and financial condition.

Risks Relating to Our Common Stock:

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

As of April 18, 2008, we had 192,136,603 shares of common stock issued and outstanding and outstanding options and warrants to purchase 81,464,464 shares of common stock. All of the shares issuable upon exercise of our options and warrants may be sold without restriction. The sale of these shares may adversely affect the market price of our common stock. The issuance of shares upon exercise of options and warrants will cause immediate and substantial dilution to the interests of other stockholders since the selling stockholders may convert and sell the full amount issuable on exercise.

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

Companies trading on The Over The Counter Bulletin Board (the “OTC Bulletin Board”), such as us, must be reporting issuers under Section 12 or Section 15(d) of the Securities Exchange Act of 1934, as amended, and must be current in their reports under Section 13, in order to maintain price quotation privileges on the OTC Bulletin Board. If we fail to remain current on our reporting requirements, we could be removed from the OTC Bulletin Board. As a result, the market liquidity for our securities could be severely adversely affected by limiting the ability of broker-dealers to sell our securities and the ability of stockholders to sell their securities in the secondary market. Prior to May 2001, we were delinquent in our reporting requirements, having failed to file our quarterly and annual reports for the years ended 1998 – 2000 (except the quarterly reports for the first two quarters of 1999). We have been current in our reporting requirements for the last six years, however, there can be no assurance that in the future we will always be current in our reporting requirements.

We may not be able to implement section 404 of the Sarbanes Oxley act of 2002 on a timely basis.

The SEC, as directed by Section 404 of the Sarbanes-Oxley Act, adopted rules generally requiring each public company to include a report of management on the company's internal controls over financial reporting in its annual report on Form 10-KSB that contains an assessment by management of the effectiveness of the company's internal controls over financial reporting. This requirement will first apply to our annual report on Form 10-KSB for the fiscal year ending September 30, 2008. Under current rules, commencing with our annual report for the fiscal year ending September 30, 2009 our independent registered accounting firm must attest to and report on management's assessment of the effectiveness of our internal controls over financial reporting.

We have not yet developed a Section 404 implementation plan. We have in the past discovered, and may in the future discover, areas of our internal controls that need improvement. How companies should be implementing these new requirements including internal control reforms to comply with Section 404's requirements and how independent auditors will apply these requirements and test companies' internal controls, is still reasonably uncertain.

We expect that we will need to hire and/or engage additional personnel and incur incremental costs in order to complete the work required by Section 404. We may not be able to complete a Section 404 plan on a timely basis. Additionally, upon completion of a Section 404 plan, we may not be able to conclude that our internal controls are effective, or in the event that we conclude that our internal controls are effective, our independent accountants may disagree with our assessment and may issue a report that is qualified. Any failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm our operating results or cause us to fail to meet our reporting obligations.

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

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

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

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

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

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

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

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

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

USE OF PROCEEDS

This prospectus relates to shares of our common stock and common stock underlying warrants that may be offered and sold from time to time by the selling stockholders. We will not receive any proceeds from the sale of shares of common stock in this offering.

MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

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

The following table sets forth the quarterly quotes of high and low prices for our Common Stock on the OTC Bulletin Board during the fiscal years ended September 30, 2006 and September 30, 2007 and the six months ended March 31, 2008. In February of 2003, we changed our year end to September 30. We changed our fiscal year end in connection with a reverse merger we entered into in December 2002, in which the acquirer for accounting purposes had a fiscal year end of September 30. For ease of fiscal reporting, we adopted the same fiscal year end.

Year ended 9/30/06	High	Low
December 31, 2005	$ 0.58	$ 0.16
March 31, 2006	$ 0.37	$ 0.15
June 30, 2006	$ 0.27	$ 0.10
September 30, 2006	$ 0.17	$ 0.07
Year ended 9/30/07	**High**	**Low**
December 31, 2006	$ 0.12	$ 0.07
March 31, 2007	$ 0.28	$ 0.09
June 30, 2007	$ 0.23	$ 0.10
September 30, 2007	$ 0.15	$ 0.08
Year ended 9/30/08	**High**	**Low**
December 31, 2007	$ 0.17	$ 0.09
March 31, 2008	$ 0.22	$ 0.09

HOLDERS

As of April 18, 2008, we had approximately 13,310 holders of our common stock. The number of record holders was determined from the records of our transfer agent and does not include beneficial owners of common stock whose shares are held in the names of various security brokers, dealers, and registered clearing agencies. The transfer agent of our common stock is American Stock Transfer & Trust Company, 6201 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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EQUITY COMPENSATION PLAN INFORMATION

2002 Professional/Employee/Consultant Compensation Plan

In November of 2002, we created a special compensation plan to pay the founders, consultants and professionals that had been contributing valuable services to us during the previous nine months. This plan, under which 2,000,000 shares of our common stock were reserved for issuance, is called the Professional/Employee/Consultant Compensation Plan (the "Compensation Plan"). Share and option issuances from the Compensation Plan were to be staggered over the following six to eight months, and consultants that were to continue providing services thereafter either became employees or received renewed contracts from us in July of 2003, which contracts contained a more traditional cash compensation component. Each qualified and eligible recipient of shares and/or options under the Compensation Plan received securities in lieu of cash payment for services. Each recipient agreed, in his or her respective consulting contract with us, to sell a limited number of shares monthly. In December of 2004, we adjusted the exercise price of options under the Compensation Plan to $0.60 per share. As of April 18, 2008, a total of 1,440,000 shares have been issued from, and options to purchase 560,000 shares have been issued under the Compensation Plan, and options to purchase 264,000 shares have been exercised as of that date.

2005 Incentive Stock Plan

On January 26, 2005, the Board of Directors, and on February 15, 2005, the holders of a majority of the outstanding common stock of the Company approved the Company's 2005 Incentive Stock Plan and authorized the issuance of 16,000,000 shares of common stock as stock awards and stock options thereunder. On May 16, 2007, at the annual meeting of stockholders, the holders of a majority of the outstanding common stock of the Company approved an increase in the number of shares subject to the 2005 Incentive Stock Plan to 20,000,000 shares of common stock. The 2005 Incentive Stock Plan is designed to retain directors, executives, and selected employees and consultants by rewarding them for making contributions to our success with an award of shares of our common stock. As of April 18, 2008, a total of 8,550,000 shares have been issued and options to purchase 5,660,000 shares have been granted under the 2005 Incentive Stock Plan.

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

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))
	(a)	(b)	(c)
2005 Incentive Stock Plan approved on January 26, 2005	5,660,000	$ 0.47	5,790,000
Total	5,660,000	$ 0.47	5,790,000

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

Forward-looking Information

This Registration Statement on Form S-1 (including the section regarding Management's Discussion and Analysis of Financial Condition and Results of Operations) contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act") and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), including statements using terminology such as "can", "may", "believe", "designate to", "will", "expect", "plan", "anticipate", "estimate", "potential" or "continue", or the negative thereof or other com terminology regarding beliefs, plans, expectations or intentions regarding the future. You should read statements that contain these words carefully because they:

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

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

Introduction

We provide botanical DNA encryption, embedment and authentication solutions that can help protect companies, governments and consumers from counterfeiting, fraud, piracy, product diversion, identity theft, and unauthorized intrusion into physical locations and databases. Our SigNature Program provides a secure, accurate and cost-effective means for our customers to incorporate our SigNature DNA Markers in, and then quickly and reliably authenticate and identify, a broad range of items such as artwork and collectibles, fine wine, consumer products, digital media, financial instruments, identity cards and other official documents. Having the ability to reliably authenticate and identify counterfeit versions of such items enables companies and governments to detect, deter, interdict and prosecute counterfeiting enterprises and individuals.

Our SigNature Program enables our customers to cost-effectively:

- give assurance to manufacturers, suppliers, distributors, retailers and end-users that their products are authentic and can be forensically authenticated;
- integrate our SigNature DNA Markers with existing security solutions such as barcodes, radio frequency identification (RFID) tags, holograms, microchips and other securities measures; and
- add value to the "bottom-line" by helping to diminish product diversion and counterfeiting.

Counterfeit and diverted products continue to pose a significant and growing problem with consumer packaged goods, especially for prestige and established brands worldwide. Piracy, identity theft and forged documents and items are also highly prevalent in vertical markets such as digital media, fine art, luxury goods, and alcoholic beverages. Key aspects of our strategy include:

- continuing to improve and customize our solution to meet our current and potential customers' needs;
- continuing to develop and enhance our existing DNA marker authentication technologies;

expanding our customer base both domestically and abroad by targeting high volume markets; and
augmenting our competitive position through strategic acquisitions and alliances.

We have also begun to develop and manufacture DermalRx, an ingredient for use in skin care products, which allows for exfoliation without the irritation or inflammation associated with chemical peeling.

Plan of Operations

General

We expect to generate revenues principally from sales of our SigNature Program. We are currently attempting to develop business in six target markets: art and collectibles, fine wine, consumer products, digital recording media, pharmaceuticals, and homeland security driven programs. We intend to pursue both domestic and international sales opportunities in each of these vertical markets.

We believe that our existing capital resources will enable us to fund our operations until approximately September 2008. We believe we may be required to seek additional capital to sustain or expand our prototype and sample manufacturing, and sales and marketing activities, and to otherwise continue our business operations beyond that date. We have no commitments for any future funding, and may not be able to obtain additional financing or grants on terms acceptable to us, if at all, in the future. If we are unable to obtain additional capital this would restrict our ability to grow and may require us to curtail or discontinue our business operations. Additionally, while a reduction in our business operations may prolong our ability to operate, that reduction would harm our ability to implement our business strategy. If we can obtain any equity financing, it may involve substantial dilution to our then existing shareholders.

Product Research and Development

We anticipate spending approximately $15,000 for product research and development activities during the next twelve (12) months.

Acquisition of Plant and Equipment and Other Assets

We do not anticipate the sale of any material property, plant or equipment during the next 12 months. We do anticipate spending approximately $100,000 on the acquisition of leasehold improvements during the next 12 months. We believe our current leased space is adequate to manage our growth, if any, over the next 2 to 3 years.

Number of Employees

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

Critical Accounting Policies

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

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

The accounting policies identified as critical are as follows:

Equity issued with registration rights;
Revenue recognition;

Allowance for Doubtful Accounts;
Warrant liability; and
Fair value of intangible assets.

Equity Issued with Registration Rights

In connection with placement of our convertible notes and warrants to certain investors during the fiscal quarters ended December 31, 2003, December 31, 2004, March 31, 2005, March 31, 2006 and June 30, 2006, we granted certain registration rights that provide for liquidated damages in the event of failure to timely perform under the agreements. Although these notes and warrants do not provide for net-cash settlement, the existence of liquidated damages provides for a defacto net-cash settlement option. Therefore, the common stock underlying the notes and warrants subject to such liquidated damages does not meet the tests required for shareholders' equity classification in the past, and accordingly has been reflected between liabilities and equity in our previous consolidated balance sheet.

In September 2007, we exchanged our common stock for the remaining Secured Convertible Promissory Note that contained embedded derivatives such as certain conversion features, variable interest features, call options and default provisions.

The Company has an accumulative accrual of $11,750,941 in liquidating damages in relationship to the previously outstanding convertible promissory notes and related warrants.

Revenue Recognition

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

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

Allowance for Uncollectible Receivables

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

Warrant Liability

In connection with the placement of certain debt instruments, as described above, we issued freestanding warrants. Although the terms of the warrants do not provide for net-cash settlement, in certain circumstances, physical or net-share settlement is deemed to not be within our control and, accordingly, we were required to account for these freestanding warrants as a derivative financial instrument liability, rather than as shareholders' equity.

The warrant liability is initially measured and recorded at its fair value, and is then re-valued at each reporting date, with changes in the fair value reported as non-cash charges or credits to earnings. For warrant-based derivative financial instruments, the Black-Scholes option pricing model is used to value the warrant liability.

The classification of derivative instruments, including whether such instruments should be recorded as liabilities or as equity, is re-assessed at the end of each reporting period. Derivative instrument liabilities are classified in the balance sheet as current or non-current based on whether or not net-cash settlement of the derivative instrument could be required within 12 months of the balance sheet date.

In December 2006, the FASB issued FSP EITF 00-19-2, Accounting for Registration Payment Arrangements ("FSP 00-19-2") which addresses accounting for registration payment arrangements. FSP 00-19-2 specifies that the contingent obligation to make future payments or otherwise transfer consideration under a registration payment

arrangement, whether issued as a separate agreement or included as a provision of a financial instrument or other agreement, should be separately recognized and measured in accordance with FASB Statement No. 5, Accounting for Contingencies. FSP 00-19-2 further clarifies that a financial instrument subject to a registration payment arrangement should be accounted for in accordance with other applicable generally accepted accounting principles without regard to the contingent obligation to transfer consideration pursuant to the registration payment arrangement. For registration payment arrangements and financial instruments subject to those arrangements that were entered into prior to the issuance of EITF 00-19-2, this guidance shall be effective for financial statements issued for fiscal years beginning after December 15, 2006 and interim periods within those fiscal years.

As described above, as of September 30, 2007, we exchanged common stock for the previously issued Convertible Promissory Notes that contained certain embedded derivative financial instruments. As a result, the Company reclassified the warrant liabilities recorded in conjunction with the convertible promissory notes to equity as of the conversion date of the remaining note. We do not use derivative instruments to hedge exposures to cash flow, market, or foreign currency risks.

We do not use derivative instruments to hedge exposures to cash flow, market, or foreign currency risks.

Fair Value of Intangible Assets

We have adopted SFAS No. 142, Goodwill and Other Intangible Assets, whereby we periodically test our intangible assets for impairment. On an annual basis, and when there is reason to suspect that their values have been diminished or impaired, these assets are tested for impairment, and write-downs will be included in results from operations. During the years ended September 30, 2007 and 2006, our management performed an evaluation of the Company's intangible assets (intellectual property) for purposes of determining the implied fair value of the assets at September 30, 2007 and 2006, respectively. The test indicated that the recorded remaining book value of its intellectual property exceeded its fair value for the year ended September 30, 2006, as determined by discounted cash flows. As a result, upon completion of the assessment, management recorded a non-cash impairment charge of $5,655,011, net of tax, or $0.05 per share during the year ended September 30, 2006 to reduce the carrying value of the patents to $2,091,800. Considerable management judgment is necessary to estimate the fair value. Accordingly, actual results could vary significantly from management's estimates.

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. The most significant estimates relate to the estimation of percentage of completion on uncompleted contracts, valuation of inventory, allowance for doubtful accounts and estimated life of customer lists. Actual results could differ from those estimates.

Comparison of the year Ended September 30, 2007 to the year ended September 30, 2006

Revenues

During the year ended September 30, 2007, we transitioned from a development stage enterprise to an operating company. For the years ended September 30, 2007 and 2006, we generated $121,920 and $18,900 in revenues from operations, respectively. Our cost of sales for the year ended September 30, 2007 was $23,073, netting us a gross profit of $98,847. For September 30, 2006, our cost of sales was $15,639, netting us a gross profit of $3,261.

Costs and Expenses

Selling, General and Administrative

Selling, general and administrative expenses for the twelve months ended September 30, 2007 increased 41.9% to $12.1 million from $8.53 million in the same period in 2006. See a discussion of non cash items below in the Liquidity & Capital Resources section. Included within the selling, general and administrative expenses for the years ended September 30, 2007 and 2006 was expensed relating to fund raising and consultant costs of $7.9 million and $3.6 million, respectively.

Research and Development

Research and development expenses decreased $42,346 for the twelve months ended September 30, 2007 compared to the same period in 2006 from $153,191 to $110,845 primarily due to reduced activity in research and development and a change in focus to marketing activities.

Depreciation and Amortization

In the twelve months ended September 30, 2007, depreciation and amortization decreased $937,717 for the period compared to 2006 from $1,370,299 to $432,582. The decrease is attributable to the decrease in intangible amortization due to the impairment write off in the year ended September 30, 2006.

Impairment of intangible asset(s)

During the year ended September 30, 2007 and 2006, we performed an evaluation of our intangible assets (intellectual property) and determined that the implied fair carrying value exceeded its fair value at September 30, 2006. Accordingly, we recorded a non cash impairment charge to operations of $5.7 million in the year ended September 30, 2006 as compared to $0.00 for the year ended September 30, 2007.

Total Operating Expenses

During the year ended September 30, 2007, total operating expenses decreased to $12.6 million from $15.7 million in the prior year, or a decrease of $3.1 million primarily due to the impairment in intangible assets charged to operation in the year ended September 30, 2006.

Other Income/Loss

Other income for the twelve months ended September 30, 2007 decreased from a gain of $16.9 million in the comparable period to $1.4 million due to a smaller increase in fair value of warrant liabilities and debt derivatives.

Interest Expenses

Interest expenses for the twelve months ended September 30, 2007, decreased to $2.2 million from $3.6 million in the same period of 2006, a decrease of $1.4 million as a result of conversion of our debt instruments to common stock.

Net Income (loss)

Net loss for the twelve months ended September 30, 2007 increased to a loss of $13.3 million from a loss of $2.4 million in the prior period as a result of the combination of factors described above.

Comparison of the Three Months Ended December 31, 2007 to the Three Months Ended December 31, 2006

Revenues

For the three months ended December 31, 2007, we generated $123,167 in revenues from operations and our cost of sales for the three months ended December 31, 2007 was $27,890, netting us a gross profit of $95,277. For the three months ended December 31, 2006, we had no revenues or cost of sales.

Costs and Expenses

Selling, General and Administrative

Selling, general and administrative expenses decreased from $2,054,455 for the three months ended December 31, 2006 to $1,698,269 for the three months ended December 31, 2007. The decrease of $356,186, or 17.3%, is primarily attributable to a decrease in cost incurred in connection with professional services.

Research and Development

Research and development expenses increased from $29,306 for the three months ended December 31, 2006 to $36,326 for the same period in 2007. The increase of $7,020 is attributed to more research and development activity related to the recent development and feasibility study agreements than during the prior period.

Depreciation and Amortization

In the three months ended December 31, 2007, depreciation and amortization decreased by $75 from $107,879 to $107,804 for the period compared to the same period in 2006. The decrease is attributable to the reduced depreciation of our property and equipment.

Total Operating Expenses

Total operating expenses for the three months ended December 31, 2007 decreased to $1,842,399 from $2,191,640 in the prior period, or a decrease of $349,241 primarily attributable to a decrease in costs incurred in connection with professional services.

Other Income/Loss

Other income for the three months ended December 31, 2007 decreased from a gain of $16.9 million in the comparable period to $1.4 million due to a smaller increase in fair value of warrant liabilities and debt derivatives.

Interest Expenses

Gain on reevaluation of debt derivative and warrant liability decreased by $2,098,471 from a gain of $2,09,471 million for the three months ended December 31,2006 to $0 for the three months ended December 31, 2007. In September 2007, we exchanged common stock for the remaining Secured Convertible Promissory Notes that contained embedded derivatives. As a result, we reclassified the warrant liabilites recorded in conjunction with the convertible promissory notes to equity as of the conversion date of the related debt.

Interest expense for the three months ended December 31, 2007 decreased by $193,408 to $385,622 from $579,030 in the same period of 2006. The decrease in interest expense was due to the conversion into common stock in 2007 of the convertible notes issued in connection with financings affected in 2006.

Net Income (loss)

Net loss for the three months ended December 31, 2007 increased to $2,132,744 from a net loss of $671,222 in the prior period primarily attributable to the gain on reevaluation of debt derivative and warrant liability reported in 2006 compared to $0 in 2007.

Liquidity and Capital Resources

Our liquidity needs consist of our working capital requirements, indebtedness payments and research and development expenditure funding. Historically, we have financed our operations through the sale of equity and convertible debt as well as borrowings from various credit sources.

Fiscal 2006

In fiscal 2006, we completed three private placements of convertible debt and associated warrants. On November 3, 2005, we issued and sold a promissory note in the principal amount of $550,000 to Allied International Fund, Inc. ("Allied"). Allied in turn financed a portion of the making of this loan by borrowing $450,000 from certain persons, including $100,000 from Dr. Hayward, a director, our President and Chief Executive Officer. The terms of the promissory note provided that we issue upon the funding of the note warrants to purchase 5,000,000 shares of our common stock at an exercise price of $0.50 per share to certain persons designated by Allied. On November 9, 2005, we issued nine warrants to Allied and eight other persons to purchase an aggregate of 5,500,000 shares of our common stock at an exercise price of $0.50 per share. These warrants included a warrant to purchase 1,100,000 shares that was issued to Dr. Hayward, a director, our President and Chief Executive Officer. We paid $55,000 in cash to VC Arjent, Ltd. for its services as the placement agent with respect to this placement. All principal and accrued but unpaid interest under the promissory note was paid in full shortly after the closing of and from the proceeds of a private placement we completed on March 8, 2006. On March 8, 2006, we issued and sold an aggregate of 30 units consisting of (i) a $50,000 principal amount secured convertible promissory note bearing interest at 10% per annum and convertible at $0.50 per share, and (ii) a warrant to purchase 100,000 shares of our common stock at an exercise price of $0.50 per share, for aggregate gross proceeds of $1.5 million. The units were sold pursuant to subscription agreements by and between each of the purchasers and Applied DNA Operations Management, Inc., a Nevada corporation and our wholly owned subsidiary (our “Subsidiary”). The $2.050 million in gross proceeds from these first two offerings were held by our Subsidiary for our benefit and used to fund commissions, fees and expenses associated with the placements, to repay the outstanding promissory note described above plus accrued interest thereunder, to fund financing fees, consultants and public reporting costs, salaries and wages, research and development, facility costs as well as general working capital needs. On March 24, 2006, we commenced an offering (the “Offshore Offering”) of up to 140 units, at a price of $50,000 per unit, for a maximum offering of $7 million for sale to “accredited investors” who are not “U.S. persons.” The units being sold as part of the Offshore Offering consisted of (i) a $50,000 principal amount secured convertible promissory note, and (ii) a warrant to purchase 100,000 shares of our common stock at a price of $0.50 per share. On May 2, 2006, we closed on the first tranche of the Offshore Offering in which we sold 20 units for aggregate gross proceeds of $1,000,000. We paid Arjent Limited $375,000 in commissions, fees and expenses from these gross proceeds. On June 15, 2006, we completed the second tranche of the Offshore Offering in which we sold 59 units for aggregate gross proceeds of $2,950,000. We paid Arjent Limited $442,500 in commissions, fees and expenses from these gross proceeds. Additionally, on July 10, 2006 we issued 2.4 million shares of our common stock to Arjent Limited at $0.001 per share as partial consideration for its services in connection with the Offshore Offering.

Fiscal 2007

During fiscal 2007, we issued sold an aggregate principal amount of $850,000 in secured convertible promissory notes bearing interest at 10% per annum and warrants to purchase an aggregate of 1,700,000 shares of our common stock to Dr. James A. Hayward, a director, the Chairman of the Board of Directors, our President and Chief Executive Officer, as follows:

On April 23, 2007, we issued and sold a $100,000 principal amount secured promissory note bearing interest at a rate of 10% per annum and a warrant to purchase 200,000 shares of our common stock. The promissory note and accrued but unpaid interest thereon are convertible into shares of common stock of the Company at a price of $0.50 per share

by the holder of the promissory note at any time from April 23, 2007 through April 22, 2008, and shall automatically convert on April 22, 2008 at a conversion price of $0.15. The warrant is exercisable for a four-year period commencing on April 23, 2008, and expiring on April 22, 2012, at a price of $0.50 per share. The warrant may be redeemed at our option at a redemption price of $0.001 upon the earlier of (i) April 22, 2010, and (ii) the date our common stock has traded on The Over the Counter Bulletin Board at or above $1.00 per share for 20 consecutive trading days.

On June 30, 2007, we issued and sold a $250,000 principal amount secured promissory note bearing interest at a rate of 10% per annum and a warrant to purchase 500,000 shares of our common stock. The promissory note and accrued but unpaid interest thereon are convertible into shares of our common stock at a price of $0.50 per share by the holder of the promissory note at any time from June 30, 2007 through June 29, 2008, and shall automatically convert on June 30, 2008 at a conversion price of $0.087732076 per share, which is equal to a 20% discount to the average volume, weighted average price of our common stock for the ten trading days prior to issuance. The warrant is exercisable for a four-year period commencing on June 30, 2008, and expiring on June 29, 2012, at a price of $0.50 per share.

On July 30, 2007, we issued and sold a $200,000 principal amount secured promissory note bearing interest at a rate of 10% per annum and a warrant to purchase 400,000 shares of our common stock. The promissory note and accrued but unpaid interest thereon are convertible into shares of our common stock at a price of $0.50 per share by the holder of the promissory note at any time from July 30, 2007 through July 29, 2008, and shall automatically convert on July 30, 2008 at a conversion price of $0.102568072 per share, which is equal to a 20% discount to the average volume, weighted average price of our common stock for the ten trading days prior to issuance. The warrant is exercisable for a four-year period commencing on July 30, 2008, and expiring on July 29, 2012, at a price of $0.50 per share.

On September 28, 2007, we issued and sold a $300,000 principal amount secured promissory note bearing interest at a rate of 10% per annum and a warrant to purchase 600,000 shares of our common stock. The promissory note and accrued but unpaid interest thereon are convertible into shares of our common stock at a price of $0.50 per share by the holder of the promissory note at any time from September 28, 2007 through September 27, 2008, and shall automatically convert on September 28, 2008 at a conversion price of $0.066429851 per share, which is equal to a 20% discount to the average volume, weighted average price of our common stock for the ten trading days prior to issuance. The warrant is exercisable for a four-year period commencing on September 28, 2008, and expiring on September 27, 2012, at a price of $0.50 per share.

In addition, on June 27, 2007, we completed a private placement offering of convertible debt and associated warrants in which we issued and sold to certain investors an aggregate of 3 units of our securities, each unit consisting of (i) a $50,000 Principal Amount of 10% Secured Convertible Promissory Note and (ii) warrants to purchase 100,000 shares of our common stock. The notes and accrued but unpaid interest thereon are convertible into shares of our common stock at a price of $0.50 per share by the holders of the notes at any time from June 27, 2007 to June 26, 2008, and shall automatically convert at $0.15 per share on June 27, 2008. At any time prior to conversion, we have the right to prepay the notes and accrued but unpaid interest thereon upon 3 days notice (during which period the holders can elect to convert the notes). The warrants are exercisable for a four year period commencing on June 27, 2008, and expiring on June 26, 2012, at a price of $0.50 per share.

Fiscal 2008

In the fiscal quarter ended December 31, 2007, we sold twenty-six and a half units at a price of $100,000 per unit for sale to “accredited investors,” as defined in regulations promulgated under the Securities Act, for aggregate gross proceeds of $2,650,000. Each unit consists of (i) a $100,000 Principal Amount 10% Secured Convertible Promissory Note and (ii) a warrant to purchase 200,000 shares of our common stock. The promissory notes and accrued but unpaid interest thereon automatically convert one year after issuance at a conversion price equal to a discount to the average volume, weighted average price of our common stock for the ten trading days prior to issuance, and are convertible into shares of our common stock at the option of the holder at any time prior to such automatic conversion at a price equal to the greater of (i) 50% of the average price of our common stock for the ten trading days prior to the date of the notice of conversion and (ii) the automatic conversion price. In addition, any time prior to conversion, we have the irrevocable right to repay the unpaid principal and accrued but unpaid interest under the notes on three days notice. The promissory notes bear interest at the rate of 10% per annum and are due and payable in full on the one year anniversary of their issuance. The warrants are exercisable for cash or on a cashless basis for a period of four years commencing one year after issuance at a price of $0.50 per share. Each warrant may be redeemed at our option at a redemption price of $0.01 upon the earlier of (i) three years after the issuance, and (ii) the date our common stock has traded on The Over the Counter Bulletin Board at or above $1.00 per share for 20 consecutive trading days.

From January 1, 2008 through the end of March 2008, we sold seven units at a price of $100,000 per unit for sale to “accredited investors,” as defined in regulations promulgated under the Securities Act, for aggregate gross proceeds of $700,000. Each unit consists of (i) a $100,000 Principal Amount 10% Secured Convertible Promissory Note and (ii) a warrant to purchase 200,000 shares of our common stock. The promissory notes and accrued but unpaid interest

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

We claim an exemption from the registration requirements of the Securities Act for the private placement of the units described above pursuant to Section 4(2) of the Securities Act because each of the units was made in a sale by the issuer not involving a public offering.

As of September 30, 2007, we had a working capital deficit of $13.8 million. For the year ended September 30, 2007, we generated a net cash flow deficit from operating activities of $2.3 million consisting primarily of year to date losses of $13.3 million. Non cash adjustments included $.4 million in depreciation and amortization charges, $.9 million for options, warrants and common stock issued in exchange for services, $2.7 million in financing costs and debt discounts attributable to convertible debentures and net change in net increase in current liabilities of $8.3 million net with a non cash adjustment of $1.4 million for income attributable to re-pricing of warrants and debt derivatives. Cash used in investing activities totaled $0.4 million, which was utilized for acquisition of property and equipment and funds held in escrow. Cash provided by financing activities for the year ended September 30, 2007 totaled $1.5 million consisting of proceeds from issuance of convertible debt. As of December 31, 2007, we had a working capital deficit of approximately $13.674 million. For the three period ended December 31, 2007, we generated a net cash flow deficit from operating activities of $1.427 million consisting primarily of year to date losses of $2.133 million. Non-cash adjustments included $492,443 in depreciation and amortization charges and common stock issued for services provided of $1,040,000. Additionally, we had a net decrease in current assets of $29,368 and a net decrease in current liabilities of $855,607. Cash used in investing activities totaled $94,508, which was utilized for acquisition of property and equipment of $5,492 and reduction in cash held in escrow of $100,000. We met our cash flow needs by issuance of convertible notes of $2,152,500, net, for the three months ended December 31, 2007.

We expect capital expenditures to be less than $200,000 in fiscal 2008. Our primary investments will be in laboratory equipment to support prototyping and our authentication services.

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

While we have raised capital to meet our working capital and financing needs in the past, additional financing is required within the next 12 months in order to meet our current and projected cash flow deficits from operations and development. We have sufficient funds to conduct our operations for approximately five months. Our financing through a private placement offering since our year end is discussed below. There can be no assurance that financing will be available in amounts or on terms acceptable to us, if at all.

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

Our registered independent certified public accountants have stated in their report dated January 14, 2008, that we have incurred operating losses in the last two years, and that we are dependent upon management's ability to develop profitable operations. These factors among others may raise substantial doubt about our ability to continue as a going concern.

Matter Voluntarily Reported to the SEC and Securities Act Violations

During the months of March, May, July and August 2005, we issued a total of 8,550,000 shares of our common stock to certain employees and consultants pursuant to the 2005 Incentive Stock Plan. We engaged our outside counsel to conduct an investigation of the circumstances surrounding the issuance of these shares. On April 26, 2006, we voluntarily reported the findings from this investigation to the SEC, and agreed to provide the SEC with further information arising from the investigation. We believe that the issuance of 8,000,000 shares to employees in July 2005 was effectuated by both our former President and our former Chief Financial Officer/Chief Operating Officer without approval of our board of directors. These former officers received a total of 3,000,000 of these shares. In addition, it appears that the 8,000,000 shares issued in July 2005, as well as an additional 550,000 shares issued to employees and consultants in March, May and August 2005, were improperly issued without a restrictive legend stating that the shares could not be resold legally except in compliance with the Securities Act. The members of our management who effectuated the stock issuances no longer work for us. These shares were not registered under the Securities Act, or the securities laws of any state, and we believe that certain of these shares may have been sold on the open market, though we have been unable to determine the magnitude of such sales. If violations of securities laws occurred in connection with the resale of certain of these shares, the employees and consultants or persons who purchased shares from them may have rights to have their purchase rescinded or other claims against us for violation of securities laws, which could harm our business, results of operations, and financial condition.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements.

Going Concern

The financial statements included in this filing have been prepared in conformity with generally accepted accounting principles that contemplate our continuance as a going concern. Our auditors, in their report dated January 14, 2008, have expressed substantial doubt about our ability to continue as going concern. Our cash position may be inadequate to pay all of the costs associated with the testing, production and marketing of our products. Management intends to use borrowings and the sale of equity or convertible debt to mitigate the effects of its cash position, however no assurance can be given that debt or equity financing, if and when required will be available. The financial statements do not include any adjustments relating to the recoverability and classification of recorded assets and classification of liabilities that might be necessary should we be unable to continue existence.

BUSINESS

Corporate History

We are a Nevada corporation, which was initially formed under the laws of the State of Florida as Datalink Systems, Inc. in 1983. In 1998, we reincorporated in Nevada, and in November of 2002, we changed our name to our current name, Applied DNA Sciences, Inc. In November 2005, our corporate headquarters were relocated from Los Angeles, California to the Long Island High Technology Incubator at Stony Brook University in Stony Brook, New York, where we established laboratories for the manufacture of DNA markers and product prototypes, and DNA authentication. To date, the company has a very limited operating history, and as a result, the company's operations have produced insignificant revenues.

Overview

We provide botanical DNA encryption, embedment and authentication solutions that can help protect companies, governments and consumers from counterfeiting, fraud, piracy, product diversion, identity theft, and unauthorized intrusion into physical locations and databases. Our SigNature Program provides a secure, accurate and cost-effective means for our customers to incorporate our SigNature DNA Markers in, and then quickly and reliably authenticate and identify, a broad range of items such as artwork and collectibles, fine wine, consumer products, digital media, financial instruments, identity cards and other official documents. Having the ability to reliably authenticate and identify counterfeit versions of such items enables companies and governments to detect, deter, interdict and prosecute counterfeiting enterprises and individuals.

Our SigNature Program enables our customers to cost-effectively:

- assure manufacturers, suppliers, distributors, retailers and end-users that their products are authentic and can be forensically authenticated;
- integrate our SigNature DNA Markers with existing security solutions such as barcodes, radio frequency identification (RFID) tags, holograms, microchips and other securities measures; and
- add value to the "bottom-line" by helping to diminish product diversion and counterfeiting.

Counterfeit and diverted products continue to pose a significant and growing problem with consumer packaged goods, especially for prestige and established brands worldwide. Piracy, identity theft and forged documents and items are also highly prevalent in vertical markets such as digital media, fine art, luxury goods, and alcoholic beverages. Key aspects of our strategy include:

- continuing to improve and customize our solution to meet our current and potential customers' needs;
- continuing to develop and enhance our existing DNA marker authentication technologies;
- expanding our customer base both domestically and abroad by targeting high volume markets; and
- augmenting our competitive position through strategic acquisitions and alliances.

We have also begun to develop and manufacture DermalRx, an ingredient for use in skin care products, which allows for exfoliation without the irritation or inflammation associated with chemical peeling.

Industry Background

Counterfeiting, product diversion, piracy, forgery, identity theft, and unauthorized intrusion into physical locations and databases create significant and growing problems to companies in a wide range of industries as well as governments and individuals worldwide. The U.S. Chamber of Commerce reported in 2006 that counterfeiting and piracy cost the U.S. economy between $200-$250 billion per year, or an estimated 750,000 American jobs, and pose a

real threat to consumer health and safety. The World Customs Organization and Interpol estimate that annual global trade in illegitimate goods increased from $5.5 billion in 1982 to roughly $600 billion in 2004.

Product counterfeiting and diversion particularly harms manufacturers of consumer products, especially for prestige and established brands, and the consumers who purchase them. For instance, according to the Gieschen Consultancy's 2005 Document, Product and Intellectual Property Security Report, or DOPIP, consumer products associated with worldwide counterfeit enforcement arrests, charges, convictions, sentences and civil litigation in 2005 amounted to around $1.5 billion. This total includes:

$695 million of entertainment and software products;
$283 million of clothing and accessories;
$193 million of cigarettes and tobacco products ;
$61 million of drugs and other medical supplies;
$36 million of toys and sports equipment;
$35 million of electronic equipment and supplies;
$12 million in perfume and cosmetics;
$11 million of food and alcohol products;
$11 million in jewelry and watches;
$10 million of computer equipment and supplies;
$123 million of other goods.

According to this report, the value of seizures and losses associated with counterfeit documents, products and intellectual property in the United States alone was $1.29 billion in 2005.

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

Governments are increasingly vulnerable to counterfeiting, terrorism and other security threats at least in part because currencies, identity and security cards and other official documents can be counterfeited with relative ease. For instance, the DOPIP valued 2005 seizures and losses associated with counterfeit currency at around $609 billion, and counterfeit identification at $124 million. Governments must also enforce the various anti-counterfeiting and anti-piracy regimes of their respective jurisdictions which becomes increasingly difficult with the continued expansion of global trade.

The digital and recording media industry, including the segment that records computer software on compact discs, has long been a victim of piracy, or the production of illegal copies of genuine media or software, and the counterfeiting and distribution of imitation media or software. Compact discs, DVDs, videotapes, computer software and other digital and recording media that appears identical to genuine products are sold at substantial discounts by vendors at street and night markets, via mail order catalogs and on the internet at direct retail websites or at auction sites. In 2006 the Business Software Alliance ("BSA") reported that in 2005, the United States lost $6.9 billion as a result of software piracy. The BSA also estimated that 21 percent of software programs in the U.S. are unlicensed and that since January 1, 2000, the BSA has settled with 1,668 companies for a total of $81,821,895. In a white paper published in December 2005, the BSA and the IDC also reported that they found in a 2004 study that the world spent more than $59 billion for commercial packaged software. Yet, software worth over $90 billion was actually installed. In other words, for every two dollars worth of software purchased legitimately, one dollar was likely obtained illegally.

The pharmaceutical industry also faces major problems relative to counterfeit, diluted, or falsely labeled drugs that make their way through healthcare systems worldwide, posing a health threat to patients and a financial threat to drugmakers and distributors. In 2006 the Center for Medicine in the Public Interest predicted that counterfeit drug sales will reach $75 billion globally in 2010, an increase of more than 90% from 2005. In February, 2006, the World Health Organization ("WHO") estimated that counterfeits account for more than 10% of the global pharmaceuticals market, and 25% of pharmaceuticals consumed in developing countries and that as much as 50% in some countries, are counterfeit. According to the WHO, counterfeiting can apply to both branded and generic products and counterfeit pharmaceuticals may include products with the correct ingredients but fake packaging, with the wrong ingredients, without active ingredients or with insufficient active ingredients. The challenges presented by traditional counterfeiters have recently been supplemented by the many websites, from direct retailers to auction sites, that offer counterfeit prescription drugs online. As a result, the pharmaceutical industry and regulators are examining emerging anti-counterfeit technologies, including radio-frequency identification tags and electronic product codes, known as EPCs, to help stem the wave of counterfeit drugs and better track legitimate drugs from manufacturing through the supply chain.

As more and more companies in each of these markets begin to address the problem of counterfeiting, we expect that different systems will compete to be the leading standards by which products can be tracked across world markets. Historically, counterfeiting, product diversion and other types of fraud have been combatted by embedding various authentication systems and rare and easily distinguishable materials into products, such as radio frequency identification (RFID) devices and banknote threads in packaging, integrated circuit chips and magnetic strips in automatic teller machine cards, holograms on currency, elemental taggants in explosives, and radioactivity and rare

molecules in crude oil. These techniques are effective but have generally been reverse-engineered and replicated by counterfeiters, which limits their usefulness as forensic methods for authentication of the sources of products and other items.

The Applied DNA Solution

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

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

We Believe Our SigNature DNA Markers Are Virtually Impossible to Copy

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

Simple and Rapid Authentication

With our advanced SigNature DNA Marker detection devices and PCR testing kits, any of our customers can quickly complete an on-site verification. When our SigNature DNA Encryption Detector pen comes in contact with our proprietary overt ink on a label or product package, a biochemical reaction triggers a reversible color change from blue to pink and back to blue. Testing of this color change can be repeated between 30 to 50 times. For forensic level authentication, our SigNature PCR testing kits can produce absolute authentication in less than 30 minutes using portable PCR machines.