

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

FORM 10-K

- Annual report under Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2013; or
- Transition report under Section 13 or 15(d) of the Securities Exchange Act of 1934

COMMISSION FILE NO. 1-11602

APPLIED NANOTECH HOLDINGS, INC.
(Exact name of registrant as specified in its charter)

TEXAS
(State of Incorporation)

76-0273345
(IRS Employer Identification Number)

3006 Longhorn Boulevard, Suite 107, Austin, Texas 78758
(Address of principal executive office, including Zip Code)

Registrant's telephone number, including area code: **(512) 339-5020**

Securities registered pursuant to Section 12(b) of the Exchange Act:

Title of each class	Name of Each Exchange on Which Registered
Common Stock, \$0.001 par value	OTC Bulletin Board

Securities registered pursuant to Section 12(g) of the Exchange Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

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

Yes No

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

Yes No

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company.

Large Accelerated Filer Accelerated Filer
Non-accelerated Filer Smaller Reporting Company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

The aggregate market value of the Common Stock held by non-affiliates of the Registrant, based upon the average of the closing bid and asked price of the Common Stock on the OTC Bulletin Board system on June 30, 2013 of \$0.09, was approximately \$12 million. As of February 24, 2014, the registrant had 156,517,812 shares of Common Stock issued and outstanding.

Documents Incorporated by Reference

No documents are incorporated by reference into this annual report on Form 10-K

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Important Information Concerning Forward-Looking Statements

Our disclosure and analysis in this report contains some forward-looking statements. Forward-looking statements give our current expectations or forecasts of future events. They use words such as “anticipate”, “believe”, “expect”, “estimate”, “project”, “intend”, “plan”, and other words and terms of similar meaning in connection with any discussion of future operating or financial performance. In particular, these include statements relating to future actions, prospective products or product approvals, future performance or results of current and anticipated products, sales efforts, expenses, the outcome of contingencies such as legal proceedings, and financial results. From time to time, we also may provide oral or written forward-looking statements in other materials we release to the public.

Any or all of our forward-looking statements in this report and in any other public statements we make may turn out to be wrong. They can be affected by inaccurate assumptions we might make, or by known or unknown risks or uncertainties. Many factors mentioned in the risk factors are important in determining future results. Consequently, no forward-looking statement can be guaranteed. Actual future results may vary materially.

We undertake no obligation to publicly update any forward-looking statements, whether as the result of new information, future events, or otherwise. You are advised; however, to consult any further disclosures we make on related subjects in our 10-Q, 8-K, and 10-K reports to the SEC. Also note that we include a cautionary discussion of risks, uncertainties, and possibly inaccurate assumptions relevant to our business. These are factors that we think could cause our actual results to differ materially from expected and historical results. Other factors besides those listed here could also adversely affect us.

PART I.

When used in this document, the words “anticipate”, “believe”, “expect”, “estimate”, “project”, “intend”, “plan”, and similar expressions are intended to identify forward-looking statements. Such statements are subject to certain risks, uncertainties, and assumptions. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those anticipated, believed, expected, estimated, projected, intended, or planned. For additional discussion of such risks, uncertainties, and assumptions, see “Important Information Concerning Forward-Looking Statements” included at the beginning of this report and “Item 1A. Risk Factors” beginning on page 11 of this report.

Item 1. *Business.*

DESCRIPTION OF BUSINESS

General

We are a global leader in nanotechnology research and development focused on generating revenues through performing research services. Our goal is to ultimately commercialize the technology that we develop, although that will require capital in excess of our current resources. We are currently focused on stabilizing our financial situation and operating the Company based solely on revenues from our research activities at breakeven or better. Our nanotechnology research is aimed at solving problems at the molecular level – working with the basic properties of matter to create new and improved materials and technologies. In our core focus areas, we have succeeded in overcoming the challenge of nanotechnology, which is how to controllably assemble the fundamental nanoparticle building blocks in order to achieve these new materials for both existing and new applications. Our research efforts are currently primarily focused on the areas of nanosensors, nanocomposites, nanoelectronics, and thermal management technology.

Our nanotechnology research involves performing contract R&D services for others to develop products and materials for new applications, and then leveraging this research by applying it to other similar applications in other industries. During this process, we also develop intellectual property (“IP”) around our products and technologies. Our business is based on the successful development of products and technologies with strong IP and generating revenues based on these technologies. Our ultimate goal is to create sustainable recurring revenues, either by licensing our products and technology to others, forming strategic relationships with others to introduce products into the marketplace, or introducing products into the marketplace ourselves. Whenever feasible, we intend to be actively involved in the commercialization of our technology in order to accelerate the process of bringing products to market.

We were founded in 1987, incorporated in Texas in 1989, and completed our initial public offering in 1993; however, as a result of our strategic review process, we completely shifted direction and refocused the business in 2006. Since that time, the majority of our research has been focused in the four core areas previously mentioned, but based on fundamental knowledge and skills that we gained in the course of our work prior to 2006. We have applied that knowledge and skill to these new areas.

Business Model

Our business model is built on generating research revenues based the development of innovative products and technologies based on strong intellectual property, with the goal of creating a portfolio of recurring revenue streams through a combination of the following methods:

- Performing research services for others;
- Licensing our technology to others;
- Forming strategic relationships with others to commercialize our technology; and
- Selling products based on our technology.

Since development of IP is a critical part of our strategy, before starting on, or accepting, a project, we analyze the potential to develop IP. As a result of this focus, we have built an extensive IP portfolio over the past 20 years, and we continue to develop new intellectual property every year. We have built a strong base of research revenues over the last four years; however, we cannot sustain profitability on a long term basis based solely on research revenues. In order for us to grow and achieve success in the marketplace, it is critical for us to commercialize the technologies that we develop. In the absence of commercialization, we are simply a research and development organization and will not be able to monetize the intellectual property that we develop. Much of our research comes from government contracts, and there are restrictions that prevent us from earning a profit on, or even covering all of the costs associated with, government contracts. In addition, with private research contracts there is a relationship between revenues received on the contract and rights granted to the licensee under the contract. Since a critical component of any research contract is for us to retain the IP rights, we must contribute to the overall cost of the project, and therefore are unable to charge rates that result in us earning a profit on the contract. Our goal on private research contracts is, at a minimum, to cover all out of pocket costs and contribute to our overall overhead.

In commercializing our technology, because of limited resources, we initially focused on licensing our technology to others. Our research partners frequently have licensing rights as a result of the research that they funded, and upon completion of the work, license the technology for specific applications. Our goal from our license agreements is to obtain upfront payments, generate recurring royalties based on product shipments by the licensee, and secure minimum royalty payments by the licensee in future years to maintain their license. In rare cases, we may license technologies for a one time upfront payment, either to induce the licensee to introduce a product so that others will follow and become potential licensees for us, or because the technology licensed is not part of our core business moving forward. License agreements and the royalties from product shipments are a critical element in us attaining sustainable long-term profitability. We expect to continue to pursue license agreements in those situations where we believe it is the best approach.

In recent years we have expanded our focus beyond licensing. Specifically, we have organized internal teams to focus on the development and commercialization of certain of our high potential products and technologies. This would allow us to participate in the commercialization process - beyond simply licensing our technology to others to manufacture products - and to allow us to bring in resources to commercialize the technology more quickly than we could on our own. We believe that, in some instances, these business units will allow us to create greater value through broader participation in the revenue stream and potentially decrease the time required to bring products to market. Commercialization of products through these internal units would require raising capital, either by the company as a whole, or specifically related to the units through formation of a subsidiary.

We intend to commercialize these high potential technologies through strategic relationships and direct sales of products using our technology. In 2011, we began direct sales of some of our products, and we expanded that focus in 2012 and 2013. While we were able to grow sales of products, we did not have adequate capital and were unsuccessful at generating enough product sales to cover the costs associated with the effort. In November 2013, we abandoned all direct sales efforts and eliminated our sales force. We will continue to generate some direct product sales based on inquiries handled by our technical people. Our focus for 2014 is on our core research and development revenues and on controlling costs to reach breakeven and achieve breakeven as a Company. Once we have attained stable operations, we intend to prepare a business plan and raise sufficient funds to enable us to commercialize our technology.

Research and Development

Our research and development (R&D) activity is the driver of our technology innovations and is critical in developing and protecting our intellectual property, and therefore, we spend significant amounts on research and development. A significant portion of our research and development costs are associated with revenue producing projects and are a critical component of revenue generation for us. We spent \$3,324,195; \$4,471,208; and \$5,517,937 on research and development in the years ended December 31, 2013, 2012, and 2011, respectively. This represents approximately 57%, 54%, and 63% of our total operating costs and expenses in each of those years. We are eliminating virtually all unfunded research and development cost. We will continue to seek funding for our research, so our spending will be dependent on the amount contracts we are able to obtain.

Much of our intellectual property and research relates to next-generation technologies that are not in wide current use and as such, additional development work is required before products can be manufactured using these technologies. Our research and development efforts occur across a continuum moving from concept to commercialization as follows:

Concept → Laboratory → Development → Pilot /Introduction → Commercialization

We have developed a distinctive competence in accelerating the process of moving ideas from the research lab to the pilot stage. Because of a lack of resources, we have had limited success in achieving actual commercialization of our products. We currently have technologies that fall into all of these stages of development and to aid in the process of moving our technologies from concept to commercialization, we continually perform funded research for both government entities and large multinational corporations. This enables us to focus our resources in areas that have a high level of interest to end-users, and thus a high probability for commercialization. As research moves into the development phase, we may also create venture or business unit teams to help accelerate commercialization for those emerging technologies that have the very highest probability for market success. We've also created pilot plant facilities for selected technologies to facilitate commercialization.

Business Segments

Our operations currently consist of only one reportable business segment. While we have three separate companies, since the overwhelming majority of the revenue is currently derived from one company, we report as one segment. Applied Nanotech Holdings, Inc. ("ANHI") is the parent company. ANHI is where we incur general operating overhead that is the approximate cost of being a public company, effectively the amount in excess of that which might be incurred by a private company performing these same activities. ANHI's activities are generally limited to communicating and reporting to shareholders, consolidating financial information, monitoring activities at subsidiaries, and reviewing potential investments.

Applied Nanotech, Inc. ("ANI"), a subsidiary of ANHI, has been almost the entire focus of our current efforts and until 2012 was our only operating subsidiary. ANI has its own management structure; including its own CEO, Dr. Zvi Yaniv, generated all of the revenues in the consolidated group during 2011 and 2012, and performs the majority of the research and development. In 2012 we formed EZDiagnostix, Inc., ("EZDX") and hired a CEO, Alan Jernigan, to run this new subsidiary. EZDX was formed to focus on commercializing our sensor technology. EZDX was able to generate some research revenue in 2013 related to the sensor technology, but was unable to raise the funds necessary to begin commercialization of its technology. As a result, in August 2013, as a cost saving measure, we made the decision to cease operations at EZDX, eliminate its staff, and transfer its only research contract to ANI. Should there be opportunities to raise capital in the future; ANI expects to pursue commercialization of the EZDX technology.

Overall

We are a global leader in nanotechnology, focusing our efforts on research, development of proof of concepts and prototypes for proposed products, commercializing our technology, and licensing our technology to others. We are developing world-class technologies that generally fall under one of five technology platforms. These platforms are:

- Nanosensor technology;
- Nanocomposites, based on carbon nanotube composites;
- Thermal management materials;
- Nanoelectronics applications; and
- Electron emission activities, primarily in the display area.

Our research and development efforts are all focused in the first four areas; however, we previously developed an extensive portfolio of intellectual property in the electron emission area and may be able to monetize that IP by licensing or selling it if there is interest at some point in the future. We are no longer actively pursuing any research projects in the electron emission area.

Our goal is to ultimately commercialize our core technologies by selling products ourselves, or in conjunction with strategic partners, or in limited cases, by licensing these technologies to others to allow them to manufacture products using our technology. However, commercialization, other than by licensing, will require resources significantly in excess of those available to us at the present time. We have no plans to establish any significant manufacturing facilities of our own for our products in the foreseeable future, and manufacturing is not a part of our core strategy. However, we do have a pilot facility that enables us to manufacture significant quantities of some of our products. To the extent that high volume manufacturing capabilities are needed for products using our technology, we intend to use manufacturing partnerships, joint ventures, or arrange to have products manufactured through contract manufacturers, whenever high volume manufacturing is needed. For certain high potential products and technologies, we are exploring establishing business units that could enable us to participate in, and profit from, the commercialization process beyond just licensing or selling the product, and to enable us to bring in resources to commercialize our technology more quickly than we could do on our own.

Nanoelectronics Applications

We consider nanoelectronics our highest potential area with the greatest potential for short term commercialization.

Conductive Inks

Copper Inks - As a result of the move towards flexible electronics, the extra processes of soldering are slowly disappearing. New processes that are digital in nature are required to allow industries to move from the design process directly to the production line. One of our areas of focus is conductive inks, starting with copper. Nanotechnology will play an important role in this process because at this time, only nanoparticles are capable of producing inks that are compatible with the nozzles used in digital printing.

To facilitate our development of conductive copper inks, we entered into a research and development agreement with Ishihara Chemical Company, Ltd., a leading industrial chemical products company headquartered in Japan, to develop conductive inks that can be deposited using an additive process such as ink-jet printing, aerosol-jet printing or screen printing. The target market for these technical inks includes printed circuit boards, flexible electronics and displays, communications instrumentation, and Radio Frequency Identification tags. Our work with Ishihara started with a feasibility study in early 2006 and culminated with a license agreement for copper inks and pastes in July 2009. As a result of this partnership, we have received over \$2.5 million in research funding from Ishihara and a \$1.5 million up-front license payment. Because of Ishihara's heavy financial commitment to the project, all IP generated by the project is jointly owned by ANI and Ishihara and the license agreement signed in 2009 gave Ishihara the exclusive right to use this technology. Ishihara can choose to give up this exclusivity at any time. Ishihara is currently readying its production facility and conducting pilot and prototype manufacturing. We expect Ishihara to introduce a product at some point in the future, but not in 2014, and we will receive a 4% royalty on product shipments by Ishihara if they introduce a product. If, however, Ishihara chooses to give up its exclusivity, it will owe no future royalties.

We chose to start our work with conductive inks by focusing on nanocopper inks using copper nanoparticles because of copper's superior electrical conductivity properties, low cost, and because it is the material of choice in the printed circuit board industry. We have been able to achieve electrical conductivity properties similar to that of bulk copper with these inks. In 2010, we, along with our partner, Ishihara Chemical, won an R&D 100 award, recognizing our inkjettable copper ink as one of the 100 most significant product innovations in 2010.

Solar inks – After our initial work in copper, we expanded our work with conductive inks to other inks including nickel, silver, aluminum, and others, as well as to various conductive pastes. In particular, we have developed aluminum and silver inks and pastes that are ideal for use in the production of solar cells. In the photovoltaic solar cell industry, cells are made starting with silicon wafers and printing aluminum pastes on one side and silver pastes on the other. Currently, the industry uses screen printing techniques, which involves direct contact with the wafer. The wafer thickness can't be reduced any further because the contact method in use today causes cracking and breaking. Our inks are capable of being printed using noncontact methods, which would allow the wafer thickness to be reduced. Since over half of the cost of the cell is the silicon wafer, this has significant cost reduction potential. In addition, inks result in a more efficient solar cell than the existing pastes. We have also developed a highly efficient aluminum paste that can be used in current solar cell production.

In 2011, we licensed our solar ink technology to Sichuan Anxian Yinhee Construction and Chemical Company ("YHCC"), a Chinese chemical company, for an upfront payment of \$1.5 million. An additional payment of \$500,000 was paid in 2012, after we achieved certain technical standards. This original license agreement covered Asia, excluding Korea and Japan, and also includes a 3% royalty on products sold by YHCC using our technology. YHCC constructed an \$18 million facility in China dedicated to our technology. YHCC intends to establish a strong customer base using the paste so that it can seamlessly transition to the inks as the solar cell manufacturers transition from pastes to the inks. In 2012, we amended the license agreement with YHCC to cover the rest of the world in exchange for an upfront payment of \$500,000. We received \$250,000 in 2012 and the remaining \$250,000 in 2013. We expect YHCC to introduce a product in 2014 and begin generating royalties, although those royalties will likely not be financially significant in 2014.

As a result of funding received from the U.S. Department of Energy, in the amount of \$1.6 million, we established a small pilot manufacturing facility in Austin that we completed in 2011 for these inks to facilitate accelerated development and testing by solar cell manufacturers. In this facility, we have the capability of producing up to 8 tons of ink or paste per year, which would be enough to supply a small solar cell manufacturer on an annual basis. Furthermore, the facility can be used for pilot production of all of our inks, not just the solar inks. We have had discussions with others regarding relationships related to solar inks that would coordinate with the YHCC license and YHCC is continuing extensive development work on these inks.

Competition. There are silver inks on the market today, but because of the high cost of silver relative to copper, a successful copper ink is likely to open up many additional markets. Most existing inks and pastes in the markets today are manufactured and sold by large multinational chemical companies. For example, the two largest suppliers of inks and pastes for solar cell production are DuPont and Ferro. We are unable to compete directly with companies of that size; consequently, we are targeting, as partners and licensees, medium sized companies with the resources to compete.

Intellectual Property. We have developed a strong intellectual property position in this area with over 50 U.S. and foreign patents and patent applications pending related to copper and other conductive metallic inks.

Technical Inks Printing Solution (TIPS)

Conductive inks have the power to revolutionize many types of electronics manufacturing. Our strategy is to provide a comprehensive solution for end users by not only developing inks, but assisting in the process from start to finish. We call this our Technical Inks Printing Solution. As part of our concept, we have done extensive research on raw materials (nanoparticles). We have developed relationships with nanoparticle suppliers and are able to supply a variety of nanoparticles as a result of these relationships. In addition, we have conducted research and development on a variety of potential end user products to help develop specifications for the inks. We have also formed relationships with hardware manufacturers with the goal of providing seamless integration into high volume manufacturing for companies wishing to use conductive inks in their manufacturing processes.

We have the potential to develop a revenue stream that includes revenue from the sale of nano-particles, research revenue from applications development, commissions on the sale of hardware, and royalties from the sale of inks.

Competition. Numerous other companies are working with other technologies with the goal of achieving results similar to the goals of our technology. The ultimate success of products using our technology depends on the results of our research compared with results achieved by others, as well as other factors including, marketing, resources, and production capabilities.

Sensors

Overview. We have greatly expanded our work and intellectual property in the area of sensor technology. Our approach to sensor technology offers the unique advantage of manipulating materials at the molecular level, where sensing events occur. We are pursuing a multiplatform approach to address specific market needs. Some of the potential applications are as follows:

Ion Mobility Sensors. We are currently developing sensors based on Ion Mobility Sensor (“IMS”) technology and Differential Mobility Spectroscopy (“DMS”). These sensors are ideal for use when both high sensitivity and high selectivity (low false positives) are required. We have also improved on existing IMS and DMS technology by developing our proprietary nonradioactive gas ionization sources to replace the radioactive isotopes that are currently used in these tools. We are currently involved in projects to develop highly sensitive Mercaptan and Methane sensors for use in the natural gas industry under funding from the North East Gas Association, and sensors for detection of citrus greening disease under funding from the California Citrus Research Board.

We have also worked with applying this technology to other applications including other agricultural pathology areas, wound care, and breath analysis. We are seeking funding for development of a breath analysis sensor for health monitoring using this technology. The human breath contains hundreds of gases and the exact breakdown of these gases is somewhat unique to each individual. There has been extensive research performed that indicates that there is a significant correlation between changes in the level of particular gases in a person’s breath and changes in that person’s health. In fact, research indicates that these changes occur quickly and can be a predictor of future health changes. Breath analysis has the potential to significantly lower health care costs, as a preventive tool, by providing early indications of potential changes in people’s health and providing that information digitally to health professionals.

Hydrogen Sensors. These sensors are initially targeted for use in fuel cells for automobiles and for remote monitoring of large power transformers. We developed a hydrogen sensor for use in the measurement of hydrogen in power transformer products. We may explore alternatives to maximize the value to be received from this sensor development by selling our intellectual property portfolio in this area.

Carbon Monoxide Sensors. We have developed a low-power carbon monoxide sensor that can last for 10,000 hours on a single battery. The sensor will be specific to carbon monoxide with no cross sensitivity to other gases and elements and is also easily portable and highly sensitive. We are seeking a development partner interested in commercializing this technology.

Biosensors. Our carbon nanotube technology is ideally suited for use in biosensors. Sensors based on carbon nanotubes or other nanomaterials can be used to detect chemical, organic, or biological warfare agents, as well as explosives, hydrogen, ammonia and numerous other chemicals. We have developed several proofs of concepts demonstrating the viability of our sensor technology, and are currently seeking development partners to license the technology and integrate it into specific products.

Other Sensors. We have demonstrated that carbon nanotubes can be used to develop sensors for chemical, organic, and biological warfare agents. We have also demonstrated that carbon nanotubes and other nanodetectors can be used for the remote detection of explosives, sensors used in environmental monitoring, health care, the food industry, biotech-biopharma applications, genetic biosensors, and immunosensors. We are currently seeking funding to take our research in this area to the next level of development, which would include proofs of concept, and product development. Ideally, we would do this work with a development partner that would fund the development and license the technology for manufacturing upon completion, or in conjunction with a development partner under a government funding program. We most likely would have different development partners for different sensors that may be used in different industries.

Competition. Our competition in the sensor area will come from a variety of technologies and companies depending on the purpose and use of the sensor. There are other technologies used in sensors; however, we believe carbon nanotube based sensors and other nanodetectors are more versatile, can sense a broader range of materials, and are more selective (sensitive) in their sensor results. We believe that selecting the right strategic partners for development of proof of concepts for our sensor technology is an important step in the market acceptance of sensors using our technology.

Intellectual Property. In the sensor area, we have developed intellectual property related to several types of sensors, with over 70 U.S. and foreign patents and patent applications pending. In 2011, we received a very important patent related to breath analysis. This patent covers the concept of a system to collect a breath sample from an individual, a gas analysis device, a data storage device, and a data analysis device, to correlating the sample with the medical condition of the individual. We believe this is a very powerful patent with significant potential to impact the area of breath analysis.

Nanocomposites

We are in the advanced stages of development of nanomaterials using carbon nanotube (“CNT”) and other composites. We believe that some of the first widespread use of nanotechnology by established companies will be in this area as they work to improve existing products, materials, and processes. The first products using our technology were introduced in the market place in 2011 and fall within the nanocomposites area. A significant opportunity exists in nanocomposites for us to develop, commercialize, and license our technology. We are well versed in harnessing the unique properties of CNTs for a variety of applications. Our work with CNT composites has been in several areas, including epoxies, nylons, polyesters, vinyl esters and glass fibers.

Epoxies – Epoxies are used in industries with significant worldwide markets, with applications including adhesives, paints, coatings, and composites. The objective of our CNT epoxy program has been to create composite materials to be used as an alternative to traditional materials. We have reinforced epoxy with CNTs to take advantage of CNTs mechanical properties while reducing the weight of materials needed for specific applications. We have developed patented processes and know-how which has enabled us to uniformly disperse CNTs throughout the epoxy to create significant improvements in strength, toughness, durability, vibration dampening, and other mechanical properties.

In September 2005, we signed a development contract with Yonex Co. Ltd., a large sporting goods manufacturer, to develop nanocomposites to be used in sporting equipment. This agreement culminated in a license agreement in October 2008 that allowed Yonex to use our technology in its tennis and badminton racquets. In 2010, we completed an additional agreement with Yonex to license this technology for use in golf shafts. This development agreement served as the foundation of our work in the CNT composites area. In 2011, Yonex introduced golf shafts and badminton racquets using our technology and began generating royalties for us. In 2013, Yonex bought out the remainder of payments under its license for a lump sum payment. No further royalties will be received from Yonex.

Other CNT Enhanced Resins – In addition to epoxy resins, we have done work with other types of resins including polyesters and vinyl esters. Our polyester resin development has been funded by the U.S. Army for applications primarily related to ballistic protection, although polyester resins enhanced by CNTs have many other applications. Vinyl esters are currently widely used in a variety of industrial applications including storage tanks, piping, and construction, and we have done initial work in this area with promising results.

Nylons – The addition of CNTs to nylons can enhance certain mechanical properties and the electrical conductivity of insulating material. Of all the types of nylons available, Nylon 6 is the most common, with an estimated 60% of the world volume and with uses in a variety of industries including textiles, carpeting, safety belts, fishing lines, and many other applications. We have developed a patented process for coating nylon pellets with CNTs to improve electrical conductivity. Nylon 6 with improved electrical conductivity can be used for its anti-static qualities, electrostatic discharge, and electromagnetic/RF shielding.

Glass Fibers – We have applied our knowledge in CNT enhanced composites to develop a strengthened fiberglass that can be used for applications with long lifetime requirements, such as wind turbine blades. Current wind blade research is focused on lowering the weight of materials to reduce overall cost and increase efficiency. Our early research has shown dramatic results in lowering the weight of materials using CNT strengthened materials, and we are continuing to apply resources with our partners, to further develop this technology.

Competition. A wide range of companies work with composite materials, including some working with CNT enhanced composites. Since each project is unique, our competition would come from different companies for different applications. Since we rely on patented technology, any competition comes from different composites, or different formulations of CNT composites. Some of the companies known to be working in the CNT composite area are Zyvex Performance Materials in Columbus, Ohio, GSI Creos in Tokyo, Japan, and Amroy Europe, Ltd. in Finland.

Intellectual Property. We have developed a strong intellectual property position in the nanocomposites area with over 50 U.S. and foreign patents and patent applications pending.

Thermal Management

We have marketed a unique patented thermal management material called CarbAI™. In 2009, R&D Magazine recognized CarbAI™ as one of the 100 most significant product innovations of 2009 with its R&D 100 Award. The inability to effectively control temperature is the number one cause of failure for electronics, resulting in more failures than dust, humidity, vibration, and other harmful conditions. CarbAI™ provides a passive thermal management solution for temperature control issues that plague electronics manufacturers and has the ability to reduce costs for, and extend the lives of, many electronics applications.

CarbAI™ is a carbon based metal nanocomposite comprised of 80% carbonaceous matrix and a dispersed metal component of 20% aluminum. We have also developed a simplified version of CarbAI™ based on graphite that is less expensive, but still ideal for many applications. CarbAI™ has a unique combination of low density, high thermal diffusivity, high thermal conductivity, and a low coefficient of thermal expansion that results in a material that far exceeds the capabilities of conventional passive thermal management materials. There is an extensive worldwide market for thermal management materials, and CarbAI™ is ideal for applications in the electronics industry, in LED displays, power strips, power LED lighting, and for concentrated photovoltaic solar cell systems.

In 2011, we were able to secure a reliable, high quality, production source for our CarbAI™ material and actively pursued sales of the product. In addition to selling the base product, we have the capability to provide value added services such as segmenting, laminating, and printing directly on the CarbAI™ material. In January 2012, we increased our efforts in the thermal management industry related to direct sales of our product. In 2013, because of a lack of capital and limited success in this area, we discontinued our sales efforts. We are, however, continuing funded research efforts in this area and may have opportunities to sell products in the future.

Competition. Because CarbAI™ is a new patented material; its competition comes from already existing active and passive thermal management systems. For example, many manufacturers use basic materials such as aluminum, copper, and others as thermal management tools. In addition, computer equipment includes fans, while LED Billboards include air conditioning equipment as thermal management tools.

Intellectual Property. In addition to some underlying patents filed throughout the world, we have a patent application pending in the U.S. and in foreign jurisdictions that we believe is a basic patent critical to manufacturing this product.

Electron Emission Activities

Until 2006, our main focus for virtually the entire history of ANHI was on electron emission activities. We performed extensive research and accumulated significant intellectual property in this area. The bulk of that activity has centered on Field Emission Display (“FED”) technology. FED is a next generation display technology that is ideally suited for use in large flat screen televisions. Our intellectual property in the electron emission area is mature and well developed. We are now dependent on a manufacturer to introduce a product using our technology. As such, we are no longer devoting any resources to further develop this technology, unless funded for a specific application. We are no longer actively seeking funding in this area. We are, however, closely monitoring developments in the industry to determine if a manufacturer introduces a product that requires a license for our technology.

In addition to display applications, there is also a wide array of potential non-display applications related to electron emission activities, although the markets tend to be much smaller than for display applications. In the past, we have performed research related to lighting applications, ion sources, traveling wave tubes, and have explored other electron emission applications, including X-ray. As with display applications, we monitor these industries for products that may potentially use our intellectual property.

Key Intellectual Property

Our most significant patent in the electron emission area is a basic patent that we refer to as the Raman Spectrum Patent (U.S. Patent 5869922) covering emissions from a wide range of carbon forms. This patent covers field emission devices using various forms of carbon, including carbon nanotubes (CNT), carbon films, and other forms of carbon that fall within a particular range on the Ultraviolet Raman band. This basic patent is fundamental and has broad applicability and wide geographic coverage, having been issued in the U.S., China, South Korea, Japan, and validated in several European countries. In addition to this basic patent, we have a wide variety of other patents that compliment this basic patent in specific situations. Since we believe anyone using our technology will require a license to the Raman patent, as a cost saving measure, we are letting all other electron emission patents lapse as maintenance fees become due. Our patents in this area are aging and the likelihood of monetization decreases with each passing year.

Competition. Because of the strength of our intellectual property in the electron emission area, our competition comes from other technologies, rather than from other companies. For displays, this competition comes from LCD displays, Plasma displays, LED displays, and color picture tubes.

Intellectual Property Rights

An important part of our business and product development strategy is to seek, when appropriate, protection for our products and proprietary technology through the use of various United States and foreign patents. In fact, before starting any research projects, we analyze the potential for the project to generate valuable IP. Our patent portfolio consists of over 240 patents, including issued patents and patent applications pending before foreign and United States Patent and Trademark Offices. We also have unsubmitted patent applications in process. In addition, there are foreign counterparts to certain United States patents and applications. We consider our patent portfolio to be our most valuable asset. However, as a cost saving measure, we are becoming much more selective in filing patents in foreign jurisdictions and are focusing our efforts on the U.S.

The patenting of technology-related products and processes involves uncertain and complex legal and factual questions. To date, no consistent policy has emerged regarding the breadth of claims of such technology patents. Therefore, there is no assurance that our pending United States and foreign applications will issue, or what scope of protection any issued patents will provide, or whether any such patents ultimately will be upheld as valid by a court of competent jurisdiction in the event of a legal challenge. Interference proceedings, to determine priority of invention, also could arise in any of our pending patent applications. The costs of such proceedings would be significant and an unfavorable outcome could result in the loss of rights to the invention at issue in the proceedings. If we fail to obtain patents for our technology, and are required to rely on unpatented proprietary technology, there is no assurance that we can protect our rights in such unpatented proprietary technology, or that others will not independently develop substantially equivalent proprietary products and techniques, or otherwise gain access to our proprietary technology.

Competitors have filed applications for, or have been issued patents, and may obtain additional patents and proprietary rights relating to products or processes used in, necessary to, competitive with, or otherwise related to, our patents. The scope and validity of these patents, and the extent to which we may be required to obtain licenses under these patents or under other proprietary rights and the cost and availability of licenses is unknown. This may limit our ability to license our technology. Litigation concerning these or other patents could be protracted and expensive. If suit were brought against us for patent infringement, a challenge in the suit by us as to the validity of the other patent would have to overcome a legal presumption of validity. There can be no assurance that the validity of the patent would not be upheld by the court or that, in such event, a license of the patent to us would be available. Moreover, even if a license were available, the payments that would be required are unknown and could materially reduce the value of our interest in the affected products. We do, however, consider our patents to be very strong and defensible in any action that may be brought against us. In the past, a major law firm reviewed our patent portfolio and agreed to handle litigation related to certain of our patents on a contingency basis.

We also rely upon unpatented trade secrets. No assurances can be given that others will not independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose such technology or that we can meaningfully protect our rights to our unpatented trade secrets.

We require our employees, directors, consultants, outside scientific collaborators, sponsored researchers, and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with us. These agreements provide that all confidential information developed or made known to the individual during the course of the relationship is to be kept confidential and not disclosed to third parties except in specific circumstances. In the case of employees, the agreements provide that all inventions conceived by the individual shall be our exclusive property. There is no assurance, however, that these agreements will provide meaningful protection for our trade secrets in the event of unauthorized use or disclosure of such information.

Government Regulation

Products using our technology may be subject to extensive government regulation in the United States and in other countries. In order to produce and market existing and proposed products using our technology, our licensees must satisfy mandatory safety standards established by the U.S. Occupational Safety and Health Administration (“OSHA”), pollution control standards established by the U.S. Environmental Protection Agency (“EPA”) and comparable state and foreign regulatory agencies. We may also be subject to regulation under the Radiation Control for Health and Safety Act administered by the Center for Devices and Radiological Health (“CDRH”) of the U.S. Food and Drug Administration. OSHA, the EPA, the CDRH and other governmental agencies, both in the United States and in foreign countries, may adopt additional rules and regulations that may affect us and products using our technology. Additionally, our arrangements with our licensees and their affiliates may subject products using our technology to export and import control regulations of the U.S. and other countries. The cost of compliance with these regulations has not been significant in the past and is not expected to be material in the future.

A portion of our revenue has consisted of reimbursement of expenditures under U.S. government contracts. We recognized \$2,048,840 of revenue in 2013; \$1,733,728 of revenue in 2012; and \$2,956,717 of revenue in 2011, related to government contracts. These reimbursements represent all or a portion of the costs associated with such contracts. As of December 31, 2013, we have several government contracts in process that have approximately \$1.9 million of revenue yet to be recognized. Government contracts are subject to delays and risk of cancellation. Also, government contractors generally are subject to various kinds of audits and investigations by government agencies. These audits and investigations involve review of a contractor's performance on its contracts, as well as its pricing practices, the costs it incurs and its compliance with all applicable laws, regulations and standards. We have been audited by the government, with no material changes, and in the future we expect to be audited by the government; however we expect the results of any government audits to have an insignificant effect on our operations and our financial statements.

Employees

As of February 21, 2013 we had 16 full-time employees, including 3 executive officers, and 1 part time employee. At the present time, we do not anticipate the need to hire significant additional employees to support our plans for increasing revenue levels in the next 12 months; however, if revenues increase beyond expected levels, we may hire additional employees. We are not subject to any collective bargaining agreements, and we consider our relations with our employees to be good.

Available Information

Our website is <http://www.appliednanotech.net>. Our periodic reports and all amendments to those reports required to be filed or furnished pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 are available free of charge through its website. During the period covered by this report, the Company made its periodic reports on Form 10-K, and Form 10-Q and its current reports on Form 8-K and amendments to those documents available on its website as soon as reasonably practicable after those reports were filed with or furnished electronically to the Securities and Exchange Commission at www.sec.gov. The Company will continue to make such reports and amendments to those reports available on its website as soon as reasonably practicable after those reports are filed with or furnished to the Securities and Exchange Commission. Material contained on our website is not incorporated by reference in this Annual Report on Form 10-K.

Item 1A. Risk Factors

Our success is dependent on our principal technologies

Our technology platforms, which include nanocomposites, nanoelectronics, nanosensors, thermal management, and electron emission activities, are emerging technologies. Our financial condition and prospects are dependent upon commercializing our technology, licensing our intellectual property to others, or introduction of the technology into the marketplace. Additional R&D needs to be conducted on some of our technologies before products can be produced using this technology. Market acceptance of products using our technology will be dependent upon acceptance within the industries of those products of the quality, reliability, performance, efficiency, and breadth of application and cost-effectiveness of the products. There can be no assurances that these products will be able to gain commercial market acceptance.

Our technology development is in its early stages and the outcome is uncertain

Some of our applications of nanotechnologies, and certain products that use these technologies, will require significant additional development, engineering, testing and investment prior to commercialization. We are exploring the use of our technology in several different types of products. We have developed proof of concepts of potential products based on our technologies. In some cases, we may develop products jointly with others based on our technology. Upon successful completion of the development process, our development partners will likely be required to license our technology to produce and sell the products. We expect that our development partners will want to retain rights to any intellectual property that they develop in the process.

If any of the potential products that are being developed using our technologies are successfully developed, it may not be possible for us or potential licensees or partners to successfully introduce the products, distribute them, market them to customers, or produce these products in significant quantities at a price that is competitive with other similar products. At the present time, the only significant revenue that we receive related to our technology is related to reimbursed research expenditures and development fees. These revenues are identified in our quarterly filings on Form 10-Q and our annual filings on Form 10-K in the “Management’s Discussion and Analysis of Financial Condition and Results of Operations” sections. The first products using our technology were introduced in the marketplace in 2011, and we began receiving royalties as a result.

We may not be able to provide system integration

In order to prove that our technologies work and will produce a complete product; we may be required to integrate a number of highly technical and complicated subsystems into a fully integrated prototype. There is no assurance that we will be able to successfully complete the development work on some of our proposed products or that there will ultimately be any market for those products.

Many products that may be developed using our technology will need to be integrated into end-user products by manufacturers of those products. Although we intend to develop products to be integrated into existing manufacturing capabilities, manufacturers may be required to make modifications to, or expand their manufacturing capabilities. Manufacturers may elect not to integrate products using our technology into their end-user products, or they may not devote adequate resources to modifying their manufacturing capabilities so that our technologies can be successfully incorporated into their end-user products. The cost and complexity of integration may delay the introduction of products using our technology.

Our development partners have certain rights to jointly developed property and to license our technology

In some cases, we have committed to license our technology to our development partners upon completion of certain development projects that are in process. The terms of all such licenses have not yet been finalized. Our development partners usually also have rights to any jointly developed property; however, any such jointly developed property would likely be based, at least in part, on our underlying technology which would require our partners to enter into a license agreement with us. See also “Our technology development is in its early stages and the outcome is uncertain” above for further discussion. In the case of Ishihara, they have the right to use our jointly owned technology without license and the existing license agreement is only to preserve their exclusivity. They could choose to give up that exclusivity and then would owe no further royalties.

Products using our technology may not be accepted by the market

Since our inception, we have focused our product development and R&D efforts on technologies that we believe will be a significant advancement over currently available technologies. With any new technology, there is a risk that the market may not appreciate the benefits or recognize the potential applications of the technology. Market acceptance of products using our technology will depend, in part, on our ability and the ability of our licensees and partners to convince potential customers of the advantages of such products as compared to competitive products. It will also depend upon our ability to train manufacturers and others to use our products.

We have limited resources and our focus on particular products may result in our failure to capitalize on other opportunities

We have limited resources available to successfully develop and commercialize our technology. As of February 21, 2014, we had 16 full-time employees and 1 part time employee. There is a wide array of potential applications for our technology, and our limited resources require us to focus on specific product areas, while ignoring others. We focus our efforts on those projects for which we can obtain external funding since the availability of funding provides an external verification of the probability of commercial success of resulting products.

Rapid technological changes could render our technology obsolete, and we may not remain competitive

The industries in which we compete are highly competitive and are characterized by rapid technological change. Our existing and proposed products will compete with other existing products and may compete against other developing technologies. Development by others of new or improved products, processes or technologies may reduce the size of potential markets for our products. There is no assurance that other products, processes or technologies will not render our proposed products obsolete or less competitive. Most of our competitors have greater financial, managerial, distribution and technical resources than we do. We will be required to devote substantial financial resources and effort to further R&D. There is no assurance that we will successfully differentiate our technology from our competitors' technology, or that we will adapt to evolving markets and technologies, develop new technologies, or achieve and maintain technological advantages.

We have limited manufacturing capacity and experience

Our employees are primarily scientists, and we have no significant manufacturing experience. We have no established commercial manufacturing facilities, and we have no intention of establishing a large scale manufacturing facility on our own. We are focusing our efforts on licensing our intellectual property to others for use in their manufacturing processes, or working with strategic partners that have manufacturing capabilities. To the extent that any of the products that we develop require significant manufacturing facilities, we intend to either contract with a qualified manufacturer, or enter into a joint venture or other similar arrangement. We have established a pilot manufacturing facility for our inks, nanocomposites, and thermal management materials. Should the development proceed to the point where a production facility is required, we intend to license or contract with others for production. This will make our success dependent on these third party relationships.

The health effects of nanotechnology are unknown

There is no scientific agreement on the health effects of nanomaterials, but some scientists believe that in some cases, nanomaterials may be hazardous to an individual's health or the environment. The science of nanotechnology is based on arranging atoms in such a way as to modify or build materials. Depending on the nanomaterials used, the resulting material may not be found naturally in nature; therefore, the effects are unknown. The Company takes appropriate precautions for its employees working with carbon nanotubes and believes that any health risks related to carbon nanotubes used in potential products can be minimized. Future research into the effects of nanomaterials in general, and carbon nanotubes in particular, on health and environmental issues may have an adverse effect on products using our technology.

We are dependent on the availability of materials and suppliers

The materials used in producing current and future products using our technology are purchased from other vendors. We anticipate that raw materials used in products to be developed by us will be readily available to us and to potential manufacturers of our products. However, there is no assurance that the current availability of these materials will continue in the future, or if available, will be procurable at favorable prices.

We have a history of net losses

We have a history of net losses. From our inception through December 31, 2013, we incurred net losses of approximately \$121 million. Although we expect to at least breakeven in 2014, there is no guarantee that we will be profitable at any time in the future. We have incurred net income and losses for the ten preceding years as shown below:

Year Ended December 31	Net Income (Loss)
2004	(\$7,139,109)
2005	(\$5,818,816)
2006	(\$6,593,892)
2007	(\$4,256,891)
2008	(\$2,685,867)
2009	(\$2,152,605)
2010	411,304
2011	(\$2,570,248)
2012	(\$5,129,150)
2013	(\$3,140,888)

Although we are working to be profitable in the future, we may not be. It is not possible for us to achieve sustainable profitability solely based on our research revenues, given the rate limitations imposed by the government and market factors related to private research contracts, especially with our cost structure. It is critical that we commercialize our technology to achieve profitability, whether that commercialization is the result of licensing, product sales, or other strategic relationships. It will require capital in excess of our current capital to commercialize any of our technologies. Our profitability in 2014 is dependent upon a combination of obtaining additional research funding, product sales by our licensees, product sales by us, and significant additional cost cutting. We may, however, continue to incur additional operating losses for an extended period of time as we continue to develop our technologies. We do, however, expect the magnitude of those losses, if they continue, to decrease. Currently, we are a contract research and development organization and are dependent on license agreements and research funding to achieve breakeven or profitability. In order to continue development of our technology, we anticipate that substantial research and development expenditures will continue to be incurred. We have funded our operations to date primarily through the proceeds from the sale of our equity securities and debt offerings. Our auditors have included a going concern paragraph in their opinion on our financial statements for 2013, as they did for 2012, which could impact our ability to obtain financing, or the terms of such financing. We expect to at least breakeven in 2014; however, we will need to raise additional capital.

We have no current royalty agreements producing significant revenue

At the present time, our strategy is dependent on licensing our technology to other companies and obtaining royalties based on products that these licensees develop and sell. We are beginning to sell certain products ourselves; however, we have no plans to manufacture any products in significant quantities ourselves, and as such at the present time, and we have limited product revenues. We may enter into joint ventures or other business arrangements where we collaborate with others to sell or manufacture products. While we do have existing licenses, none of the licensees are currently producing products that generate royalties at the present time, and therefore at, we are receiving no royalty revenue. Successful implementation of our strategy requires product sales by us. We have two licensees that could introduce products into the marketplace; however, we expect royalties to be insignificant in 2014 and there is no guarantee that products will ever be introduced by our licensees, or that they will be successful.

We may license our technology to be used in other applications. See additional discussion in the risk factor above entitled "Our technology development is in its early stages and the outcome is uncertain". It is our intention that all future license agreements will include a provision that requires the payment of ongoing royalties, although there is no assurance that will occur.

Our revenues have been dependent on government contracts in the past

Historically, a significant portion of our revenues have been derived from contracts with agencies of the United States government and it continues to be our main source of revenue. The contracts are a critical revenue source for us and are critical to our development process. Following is a summary of those revenues for the past ten years:

Year Ended December 31	Revenues from Government Contracts	Percentage of Total Revenue
2004	\$305,721	80%
2005	\$208,211	37%
2006	\$583,236	52%
2007	\$2,328,010	58%
2008	\$2,295,887	58%
2009	\$1,694,082	42%
2010	\$2,920,030	36%
2011	\$2,956,717	46%
2012	\$1,733,728	48%
2013	\$2,048,840	52%

We currently have commitments for future government funding of approximately \$1.9 million. We do not intend to seek any government funding unless it directly relates to achievement of our strategic objectives.

Contracts involving the United States government are, or may be, subject to various risks including, but not limited to, the following:

- Unilateral termination for the convenience of the government
- Reduction or modification in the event of changes in the government's requirements or budgetary constraints
- Increased or unexpected costs causing losses or reduced profits under fixed-price contracts or unallowable costs under cost reimbursement contracts
- Potential disclosure of our confidential information to third parties
- The failure or inability of the prime contractor to perform its prime contract in circumstances where we are a subcontractor
- The failure of the government to exercise options provided for in the contract
- The right of the government to obtain a non-exclusive, royalty free, irrevocable world-wide license to technology developed under contracts funded by the government if we fail to continue to develop the technology.

In addition, the current political environment and current budget deficits may result in cuts in government research funding, which could have a significant negative impact on us. Additionally, any delays in payment by the government as a result of the failure of Congress to increase any debt limitations, to extend debt deadlines, or other limitations imposed, would likely have a significant negative impact on us.

We have technologies subject to licenses

In May 2000, we licensed the rights to 6 carbon nanotube patents from Till Keesmann in exchange for an initial payment of \$250,000 and additional minimum royalties payments of \$1.0 million, all of which were made. This agreement gave us the exclusive right to license these patents to others. In 2008, as part of a litigation settlement, and as the result of a lack of interest in these patents from potential licensees, we agreed to return the licensing rights to Mr. Keesmann. We retain our irrevocable right to use these patents, and we are entitled to 50% of any royalties generated by these patents, up to a maximum of \$1.2 million. We believe it is extremely unlikely we will receive any royalties from these patents, nor will we ever owe any royalties to Mr. Keesmann.

We may be exposed to litigation liability

We have had lawsuits that arise in the normal course of business. We have been subject to litigation in the past and have settled litigation in the past that has in rare instances resulted in material payments. We expect all current lawsuits to be resolved with no material negative impact on our financial statements, and we are unaware of any other potential significant litigation. If we were to become subject to a judgment that exceeds our ability to pay, that judgment would have a material impact on our financial condition and could affect our ability to continue in existence.

We need capital and the source of that funding is uncertain

We expect to continue to incur substantial expenses for R&D, product testing, and administrative overhead. The majority of R&D expenditures are for the development of our technologies. Most of the proposed products using our technology will not be available for commercial sale or routine use in the immediate future. Commercialization of existing and proposed products that would use our technology will require additional capital in excess of that currently available to us. A shortage of capital could prevent us from achieving profitability for an extended period of time. Because the timing and receipt of revenues from the sale of products using our technology will be tied to the achievement of certain product development, testing, manufacturing and marketing objectives, which cannot be predicted with certainty, there may be substantial fluctuations in our results of operations. If revenues do not increase as rapidly as anticipated, or if product development and testing requires more funding than anticipated, we may be required to curtail our activities and/or seek additional financing from other sources. We intend to seek additional financing through the offer of debt, equity, or any combination of the two at any time.

We have developed a plan to allow us to maintain operations until we are able to sustain ourselves. That plan required significant cost cuts and increases in our research revenue, as well as raising additional capital. We believe that we have the existing resources to continue operations for a period through at least the end of February 2014 and into March. Increased revenues may extend that period. Our plan is primarily dependent on raising funds through product sales, and revenue generated from performing contract research services, as well as cost cuts.

Our plan is based on current development plans, current operating plans, the current regulatory environment, historical experience, and general economic conditions. Changes could occur which would cause certain assumptions on which this plan is based to be no longer valid. Our plan is primarily dependent on increasing revenues, selling products, cutting costs, and raising additional funds through additional debt and equity offerings. If adequate funds were not available from operations or additional sources of financing, we may have to eliminate, or reduce further, expenditures for research and development, and testing of our products. We may have to obtain funds through arrangements with other entities that may require us to relinquish rights to certain of our technologies or products. These actions could materially and adversely affect us.

Changes in patent laws could have a negative impact on us

New legislation, regulations, or rules related to obtaining or enforcing patents could significantly increase our operating costs and make it more difficult to enforce or license our patents. If new legislation, regulations, or rules are implemented by Congress, the United States Patent and Trademark Office, or the courts that impact the patent application process, the patent enforcement process, or the rights of patent holders, these changes could negatively affect our expenses and potential revenue.

Our business is subject to changing regulation of corporate governance and public disclosure

Because our common stock is publicly traded, we are subject to certain rules and regulations of federal and state entities charged with the protection of investors and the oversight of companies whose securities are publicly traded. These entities have continued to develop additional regulations and requirements in response to laws enacted by Congress, most notably the Sarbanes-Oxley Act of 2002. Complying with these new regulations has resulted in, and is likely to continue to result in, increased general & administrative costs and a diversion of management time and attention from revenue generating and other business activities to compliance activities.

We may be unable to enforce or defend our ownership and use of proprietary technology

Our ability to compete effectively with other companies will depend on our ability to maintain the proprietary nature of our technology. Although we have been awarded patents, have filed applications for patents, or have licensed technology under patents that we do not own, the degree of protection offered by these patents or the likelihood that pending patents will be issued is uncertain. Competitors in both the United States and foreign countries, many of which have substantially greater resources and have made substantial investment in competing technologies, may already have, or may apply for and obtain patents that will prevent, limit or interfere with our licensee's ability to make and sell our products using our technology. Competitors or potential licensees may also intentionally infringe on our patents. The defense and prosecution of patent suits is both costly and time-consuming, even if the outcome is favorable to us.

In foreign countries, the expenses associated with obtaining and maintaining patents can be prohibitive for a company with our limited resources. In addition, there is an inherent unpredictability in obtaining and enforcing patents in foreign countries. An adverse outcome in the defense of a patent suit could subject us to significant liabilities to third parties. Although third parties have not asserted infringement claims against us, there is no assurance that third parties will not assert such claims in the future. In the past, a major law firm has reviewed our patent portfolio and agreed to handle litigation related to certain of our patents on a contingency basis.

We rely on unpatented proprietary technology

We also rely on unpatented proprietary technology, and there is no assurance that others will not independently develop the same or similar technology, or otherwise obtain access to our proprietary technology. To protect our rights in these areas, we require employees, consultants, advisors and collaborators to enter into confidentiality agreements. These agreements may not provide meaningful protection for our trade secrets, know-how, or other proprietary information in the event of any unauthorized use, misappropriation or disclosure of such trade secrets, know-how, or other proprietary information. While we have attempted to protect proprietary technology that we develop or acquire and will continue to attempt to protect future proprietary technology through patents, copyrights and trade secrets, we believe that our success will depend upon further innovation and technological expertise.

Public perception(s) of ethical and social issues may discourage the use of nanotechnology

Nanotechnology has received both positive and negative publicity and is increasingly the subject of public discussion and debate. Governments may, for social or health purposes, prohibit or regulate the use of nanotechnology. This may restrict our ability to license our technology, or the ability of our licensees to sell their products.

Our business is subject to economic uncertainties

A portion of our research revenues come from private sources, primarily large multinational corporations. In addition, our strategy is dependent upon the receipt of royalties related to the introduction of new products by these and other companies. During times of extreme economic uncertainty, some companies may cut back on spending on research projects, or delay the introduction of new products.

The loss of key personnel could adversely affect our business

Our future success will depend on our ability to continue to attract and retain highly qualified scientific, technical and managerial personnel. Competition for such personnel may be intense. In addition, our limited financial resources make it difficult for us to pay market salaries. We may not be able to attract and retain all personnel necessary for the development of our business. In addition, some of the know-how and processes developed by us reside in our key scientific and technical personnel. The loss of the services of key scientific, technical and managerial personnel could have a material adverse effect on us until we are able to replace those personnel.

We have significant convertible debt

We have significant amounts of convertible debt due by March 2014. We do not have sufficient cash flow to pay this debt and therefore are dependent upon the majority of the debt being converted to equity, extended, or being replaced with another funding source. If debt holders do not convert, or otherwise agree to extend amounts due, we likely will be unable to meet our cash flow obligations and may be forced to curtail activities, seek financing on less favorable terms, or cease operations.

We have limited resources

We are a small company with limited human and financial resources. Most of our competitors are larger than us with greater financial strength. Our limited resources may prevent us from moving as quickly as the market requires, or from taking advantage of all the opportunities that we have available to us on a timely basis. We do not have the resources to commercialize products ourselves and must rely on others for our ultimate success. Other competitors may move more quickly and gain an advantage by establishing a presence in the market place before us.

Our licensees may have conflicting priorities

The products that are produced by our licensees using technologies that they have licensed from us generally make up only part of their overall business. There may be other factors besides the product itself that affect product introduction and sales by our licensees. These considerations may include other products sold by the licensee, financial commitments to other product lines, marketing considerations, financial considerations, desire to minimize royalties, and other factors. In addition, licensees may decide they no longer wish to maintain exclusivity and not make payments required to do so, may make improvements to the products such that they no longer believe they use our technology, may intentionally infringe on our technology for selected products, or may underreport sales of the products to minimize royalties.

We have limited experience with product sales

Our future profitability is dependent upon increasing our product sales and this is an important part of our business plan, however; we have limited experience in the sale of products, have not had significant success with product sales, and we do not have the financial resources to develop, market, distributed, and sell products. Our experience in generating revenue is through research and development agreements and license agreements. Product sales require a different skill set and will require us to hire new personnel and obtain resources to implement our business plan.

We have insufficient available authorized shares

We have 153 million shares outstanding as of February 21, 2014 and only 160 million shares authorized. We have convertible notes and options outstanding, which if all converted, would exceed our ability to deliver shares. At current rates and prices, if converted, our notes would require the issuance of 23 million shares, and if exercised, our options would require the issuance of 6 million shares. The majority of convertible notes, and all options, are convertible, or exercisable, at prices in excess of current market, so conversion is not likely without a significant increase in our stock price. We intend to increase our authorized shares at our next shareholder meeting. If prior to an increase in our authorized shares, our stock price were to increase significantly and note holders wished to convert, or option holders wished to exercise, we may be unable to deliver shares. We may be liable for damages based on investors lost profits if we are unable to honor our existing agreements.

Item 1B. *Unresolved Staff Comments*

None.

Item 2. *Properties*

We lease a facility in Austin that is used for our corporate headquarters and research and development activities under a lease expiring in February 2014. That lease calls for total payments of approximately \$20,000 per month through February 2014. We have amended and extended that lease through 2019, and under the new lease, starting in March 2014; we have reduced our space from approximately 22,000 square feet to approximately 16,000 square feet. Our new rent, starting in March 2014, will be approximately \$15,000 per month.

We believe that these facilities are suitable for our current needs and will be adequate for our anticipated research, development, and administrative activities, at least through the end of the lease period. We continuously monitor our facility needs and, if circumstances warrant, we may move to a different facility at the end of the lease period.

We do not currently invest in real estate or interests in real estate, real estate mortgages, or securities of or interests in persons primarily engaged in real estate activities. However, the Company has no policy, either for or against, making such investments.

Item 3. *Legal Proceedings*

From time to time the Company and its subsidiaries are also defendants in various lawsuits that may arise related to minor matters. It is expected that any such lawsuits would be settled for an amount no greater than the liability recorded in the financial statements for such matters. If resolution of any of these suits results in a liability greater than that recorded, it could have a material impact on us.

Item 4. *[Removed and Reserved]*

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Our common stock, \$0.001 par value, trades on the OTC Bulletin Board system under the symbol "APNT". The following table sets forth, on a per share basis for the periods indicated, the high and low sale prices for the common stock as reported by the OTC Bulletin Board system. These quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not represent actual transactions.

		<u>High</u>	<u>Low</u>
2012	First Quarter	\$0.37	\$0.22
	Second Quarter	\$0.25	\$0.17
	Third Quarter	\$0.21	\$0.14
	Fourth Quarter	\$0.21	\$0.05
2013	First Quarter	\$0.20	\$0.08
	Second Quarter	\$0.12	\$0.08
	Third Quarter	\$0.10	\$0.04
	Fourth Quarter	\$0.07	\$0.02
2014	First Quarter (through February 19, 2014)	\$0.11	\$0.03

As of February 19, 2014, the closing sale price for our common stock as reported on the OTC Bulletin Board system was \$0.06. As of February 19, 2013, there were approximately 350 shareholders of record for our common stock. This does not include shareholders holding stock in street name in brokerage accounts. As of our last record of total shareholders, including those holding stock in street name, there were approximately 6,500 shareholders.

Cash Dividends

We have never paid cash dividends on our common stock, have no plans to pay any dividends, and it is unlikely that we will pay any dividends in the foreseeable future. We currently intend to invest future earnings, if any, to finance expansion of our business. Any payment of cash dividends in the future will be dependent upon our earnings, financial condition, capital requirements, and other factors deemed relevant by our board of directors.

Recent Sales of Unregistered Securities

During the fiscal quarter ended December 31, 2013, we issued 11,350,108 shares of unregistered shares of our common stock. All of these shares were issued in conjunction with convertible notes and accounts payable issued in prior quarters and no proceeds were received in the quarter related to these shares. These notes shares were issued in an exempt offering under Regulation D of the Securities Act of 1933.

SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

Equity Compensation Plans Not Approved by the Shareholders of Applied Nanotech Holdings	Number of Securities to be issued upon exercise of outstanding options	Weighted-average exercise price of outstanding options	Number of Securities remaining available for future issuance under equity compensation plans (2)
	(a)	(b)	(c)
2002 Equity Compensation Plan (1)	5,397,339	\$0.67	—
2012 Equity Compensation Plan	570,000	\$0.16	4,082,407
Total	5,967,339	\$0.62	4,082,407

(1) The 2002 Equity Compensation Plan was approved by a wide majority of the shareholders actually casting votes at each of the 2010, 2008, and 2007 annual meetings of shareholders. However, since less than 50% of the shares eligible to vote actually cast votes at each meeting, the plan does not fall into the category of plans approved by shareholders under SEC rules.

(2) This column excludes securities reflected in column (a)

In 2002, the Company's Board of Directors established the 2002 Equity Compensation Plan for the purpose of granting incentive or non-qualified stock options to employees or directors of the Company. The plan expired in March 2012 and no future options can be granted under the plan. In April 2012, the Company's Board of Directors established the 2012 Equity Compensation Plan to replace the 2002 plan. All options granted under both plans were priced at the fair market value of our common stock, or greater, on the date of grant and have a life of up to ten (10) years from their date of grant, subject to earlier termination as set forth in such plan. A total of 5,000,000 options were authorized under the 2012 plan.

For a further description of the stock option plans described above, see Note 9 to the Consolidated Financial Statements herein. There are no equity compensation plans approved by shareholders at the present time.

Item 6. Selected Financial Data

	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>
Revenues	\$ 3,918,362	\$ 3,593,368	\$ 6,487,461	\$ 8,043,795	\$ 4,052,746
Net income (loss)	\$ (3,140,888)	\$ (5,129,150)	\$ (2,570,248)	\$ 411,304	\$ (2,152,605)
Income (loss) per share	\$ (0.02)	\$ (0.04)	\$ (0.02)	\$ 0.00	\$ (0.02)
Total assets	\$ 852,900	\$ 1,692,813	\$ 4,396,467	\$ 3,844,383	\$ 893,367
Long-term obligations	\$ —	\$ 1,641,552	\$ 48,559	\$ 1,584,390	\$ 196,958
Net shareholders' equity (deficit)	\$ (3,383,442)	\$ (2,533,358)	\$ 1,916,689	\$ 810,080	\$ (1,070,838)
Cash dividends per common share	\$ —	\$ —	\$ —	\$ —	\$ —

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion should assist in understanding our financial condition, liquidity, and capital resources as of December 31, 2013, and the results of operations for the years ended December 31, 2013, 2012 and 2011. The Notes to our Consolidated Financial Statements included later in this report contain detailed information that should also be read in conjunction with this discussion.

OVERVIEW

We are engaged in research and development, related to products that we expect to develop or improve using nanotechnology. It is our goal to commercialize these products, but as a result of limited resources, we restructured our operations in the fall of 2013 to focus primarily on maximizing our research revenues and minimizing costs. It is not possible for us to commercialize products on our own without an infusion in capital. We are currently focused on stabilizing our operations and achieving breakeven based on our research revenues only. In the past few years, we have focused on four main areas of research – Nanosensors, nanomaterials, thermal management, and nanoelectronics. We also possess extensive intellectual property related to electron emission technology. Our technologies, as well as many of the potential applications, are still new and in the early stages of development. Our revenue has primarily consisted of development projects involving either the U.S. government or large multinational corporations. We have also received upfront payments related to license agreements. In 2011, we also begin receiving royalties from the first products commercialized using our technology, however those royalties ended in 2013. We have also begun selling, in small quantities, some of the products that we developed.

OUTLOOK

We expect our total cash needs for operations to be approximately \$5.0 million in 2014. We intend to fund those needs through revenue sources, primarily research agreements. We anticipate increasing our revenue in 2014 over 2013 levels to approximately \$4.7 million; however because of working capital needs, we will also be required to raise a minimum of \$750,000 for operations. We have signed a non-binding letter of intent to merge with Nanofilm, Ltd., a privately held nanotechnology company. If completed, that merger contemplates raising money to support our operations. If the merger is not completed, we will be required to raise money on our own. We have focused on cutting expenses and increasing revenue to achieve at least breakeven. We believe that this, combined with raising money, will enable us to cover our cash needs for 2014; however, we have very little cushion for any unexpected expenses, and we may have to raise additional debt or equity funds to cover any shortfalls.

We have a history of net operating losses, but in recent years we have been focusing on increasing our revenues and reaching profitability. We are targeting at least breakeven operations and positive cash flow, prior to working capital needs, for 2014. There can be no assurances that we will be able to achieve breakeven in 2014 or the future; however, we believe that based on our recent results, our revenue backlog, anticipated new contracts, and our recent cost cuts, that we will be able to at least reach breakeven in 2014. We expect to continue our concentrated research and development of our technology in 2014, although full commercial development of any of our technologies will require additional funds in the future.

As discussed in Liquidity and Capital Resources below, we have significant amounts of convertible debt, both currently due and coming due before the end of March, 2014. We do not have the funds to pay these notes and will be required to negotiate extensions, or new conversion terms with the note holders. We believe the note holders are willing to negotiate terms that will enable the Company to survive.

Based on our plan, we believe that we can reach the point where we can sustain ourselves on our own revenue. Our plan is primarily dependent on cutting costs, increasing research revenues, and raising funds through debt or equity. Our current cash balances, when combined with expected revenues sources and other assets that can be converted to cash, as well as raising funds, are expected to be adequate to insure that we can maintain our operations at a reduced level. We believe that we have the ability to continue to secure short term funding, if needed, to enable us to continue operations until our plan can be completed. Our auditors have included a going concern paragraph in their opinion on our financial statements, as they did in 2012, which could impact our ability to obtain financing, or impact the terms available. We were able to successfully raise capital in 2013 despite the going concern qualification. While we expect to achieve at least breakeven and generate positive cash flow from operations, prior to working capital needs, in 2014, we will need to raise additional debt or equity to cover temporary shortages and improve our working capital situation.

Our plan is based on current development plans, current operating plans, the current regulatory environment, historical experience in the development of products, and general economic conditions. Changes could occur which would cause certain assumptions on which this plan is based to be no longer valid. Our plan is primarily dependent upon cutting costs, increasing the level of revenues that we achieved in 2013 and raising money. Although we do not expect funding our operations to be an insurmountable problem, if adequate funds are not available from operations, or additional sources of financing, we may have to eliminate, or further reduce substantially, expenditures for research and development, or obtain funds through arrangements with other entities that may require us to relinquish rights to certain technologies or products. Such results could materially and adversely affect us.

Critical Accounting Policies

Our significant accounting policies are summarized in the footnotes to our financial statements. Some of the most critical policies are also discussed below.

Stock based compensation - We frequently grant stock options to employees and others. We have granted significant options in the past, but in 2012 and 2013, the compensation committee essentially discontinued options for employees and officers, making this policy less critical. We did, however, grant options to the Board of Directors in 2013 as compensation for their services. We may grant significantly more options in the future. We account for any options issued using the fair value method of accounting.

Other - As a matter of policy, we review our major assets for impairment. Our major operating assets are accounts receivable, and property and equipment. We depreciate our property and equipment over their estimated useful lives. We did not identify any impaired items in 2011, 2012 or 2013. We have not experienced significant bad debt expense, and we do not believe that we need an allowance for doubtful accounts for any exposure to loss in our December 31, 2013 accounts receivable.

LIQUIDITY AND CAPITAL RESOURCES

Our cash balance decreased during the year – from approximately \$300,000 at December 31, 2012 to approximately \$100,000 at December 31, 2013. Our working capital also decreased significantly, both as a result of a decrease in our current assets and an increase in our current liabilities. Our current liabilities increased significantly as a result of movement of our long-term debt to current as well as a significant increase in accrued expenses as a result of cash conservation programs and working capital management.

The principal source of our liquidity has historically been from funds received from exempt offerings of our common stock and convertible debt. We have not raised money from common stock offerings in 2012 or 2013, but we received \$2.5 million in 2011 from the issuance of our stock in a private placement. We also received proceeds of approximately \$50,000 from the exercise of stock options by current and former employees in 2011.

We also issued convertible notes payable with a face amount of \$935,700 and \$513,375 in 2012 and 2013, respectively. These notes are convertible into common stock, and a portion of these notes have been converted as of December 31, 2013. We also have convertible notes still outstanding from prior years. In total, we have approximately \$2.3 million of convertible notes payable, including accrued interest, due in the first quarter of 2014. We do not have the funds to pay these notes, nor are we likely to be able to raise outside funding to pay these notes prior to the due dates. We expect the majority of the remaining notes to be extended, or converted into common stock in 2014 and future years; however, if note holders were to pursue immediate collection of these notes, it would have a negative impact on our ability to survive and continue operations.

We believe that our current cash level, when combined with our backlog, expected revenue, and cost reductions, is sufficient for us to operate at least through the end of February 2014, and into March; however, we intend to raise additional funds to extend that period. We expect to at least breakeven in 2014, but still need to raise funds to improve our working capital situation. We have cut costs significantly, and if revenue sources do not materialize as quickly as we expect, we intend to cut expenses further to a level to enable us to continue operations.

Since December 31, 2013, we have received approximately \$30,000 in proceeds from additional convertible debt, and we intend to raise additional funds. While we expect to be able to obtain any funds needed for operations, there is no assurance that any financing alternatives can be arranged on commercially acceptable terms. We believe that our success in maintaining profitability will be dependent upon the viability of products using our technology and their acceptance in the marketplace.

The primary factor that drives our cash used in operations is our net loss. Factors affecting our net loss are discussed in the Results of Operations section below. In 2012 and 2013, because of our reduced cash position, a substantial portion of the net loss was offset by management of working capital items, including deferral of officer, employee, and board compensation resulting in an increase in accrued expenses. We also significantly increased accounts payable in 2012 and generally maintained that level in 2013. The cash used in operations in 2011 relative to the net loss in that period is a much more normal relationship between the net loss and cash used in operations. We plan to breakeven in 2014, but likely still will have negative cashflow from operations as our accounts payable are stretched to the limit and need to be brought current and our accrued expenses will be reduced as well.

Cash used in investing activities was the result of the purchase of capital assets in all years. We would expect minimal cash to be used in investing activities in 2014. No material commitments exist as of December 31, 2013, for future purchases of capital assets.

Our contractual obligations as of December 31, 2013 consist of notes payable (including interest), operating leases, and capital leases. The notes payable are convertible into common stock at fixed rates of \$0.08 to \$0.25 per share, as well as a small portion at variable rates of 30% to 50% below the market price at the time of conversion. A summary of our obligations at December 31, 2013 is as follows:

	Total	2014	2015	2016	2017	2018	2019
Capital leases	\$10,427	\$10,427	—	—	—	—	—
Operating leases	\$1,031,732	\$220,896	\$200,424	\$199,742	\$186,804	\$191,744	\$32,122
Convertible notes payable	\$2,335,240	\$2,335,240	—	—	—	—	—

We will not have the cash available to meet our cash requirements for fiscal 2014, when considering the notes payable; however, we believe that many of the holders of the notes due in 2014 will extend, and may agree to convert both principal and interest to common stock so no cash will need to be paid.

RESULTS OF OPERATIONS

Business Segments. We operate with a single reportable business segment.

Revenues. Following is a summary of key revenue categories for the three years covered by this report.

	2013	2012	2011
Government Revenues	\$ 2,048,840	\$ 1,733,728	\$ 2,956,717
Other Contract Research	\$ 1,054,305	\$ 309,274	\$ 1,102,428
Upfront License Fees	\$ 250,000	\$ 750,000	\$ 1,500,000
Product Royalties	\$ 238,936	\$ 433,453	\$ 499,638
Product Sales	\$ 286,622	\$ 228,200	\$ 186,267
Other Revenues	\$ 39,659	\$ 138,713	\$ 242,411
Total Revenues	\$ 3,918,362	\$ 3,593,368	\$ 6,487,461
Revenue backlog at December 31	\$ 2,812,000	\$ 2,929,000	\$ 2,268,000

Our total revenue decreased significantly, by about 45%, from 2011 to 2012, but increased 9% from 2012 to 2013. Our revenues decreased in 2012 as a result of several factors. In the government revenue area, we had an extraordinary \$1.6 million contract that spanned 2010 and 2011, resulting in increased government revenues in those years. In addition, we focused on product sales in 2012. This focus diverted resources from government contracts and proposals for new contracts. We were unable to generate product sales as quickly as we expected and we lost research revenue as a result of this reallocation of resources. We have pulled back on our product sales effort and have eliminated our sales force. In 2013, we focused on rebuilding our core, bread and butter, research efforts and our government research revenue increased as a result. We are targeting about \$2.7 million of government research revenues in 2014.

Our other contract research revenues decreased from 2011 to 2012 for the same reasons as government revenues. Those revenues were rebuilt to over \$1.0 million in 2013. We are targeting \$1.5 in private contact research revenues in 2014.

Our royalty revenue – both upfront payments and product royalties decreased from 2011 to 2012, and further decreased from 2012 to 2013, primarily as a result of our decreased focus on licensing. The upfront payments were all from YHCC in all years, and the product royalties were all from Yonex in all years. We are no longer actively pursuing licensing arrangements, except in limited situations, so we expect no upfront payments in 2014. We also will receive no product sale royalties from Yonex, as Yonex bought out their license in 2013. We have two remaining licenses that could generate licenses in the future, but we expect any royalties in 2014 to be insignificant.

Our product sales increased in each of the years presented. However, we do not have the capital required to effectively pursue product sales and the results we were achieving did not justify the costs that we were incurring. In the fall of 2013, we eliminated our salesperson and sales support as part of our cost reduction program. We expect some product sales in 2014 as a result of inquiries to our technical personnel, but they will be significantly reduced from 2013.

The revenue backlog as of December 31, 2013 results from several government programs and private contracts. The majority of these programs are currently in progress and generating revenue, with the remainder related to contracts awarded, but not yet started. The overwhelming majority of this backlog will be converted into revenue in 2014. We also have some expected contracts that we consider likely that have not yet been finalized, and therefore, are not included in the backlog numbers as of December 31, 2013.

We expect revenue to be higher in 2014 than in 2012. We are targeting revenues in 2014 of \$4.7 million, an increase of approximately 20% over 2013. Of that, \$2.8 million is already committed and in process, and we have specifically identified, and are working on, opportunities that would make up the majority of the remaining \$1.9 million needed to achieve \$4.7 million in revenue in 2014. There is no guarantee that these revenues will be obtained; however, we think this target is reasonable. It is unlikely that revenues could exceed this target without raising significant additional capital that would allow us to aggressively pursue product sales.

Cost of sales. Because we do not ship significant amounts of products or provide homogenous services, we do not incur costs of sales in the traditional sense. We do keep track of our costs on individual projects, but because there is a wide variation in cost percentages, presenting cost of sales information is not meaningful. Government sponsored research has nominal or no gross margins and is primarily just a reimbursement of costs. In some cases we charge nominal amounts for projects that have much higher costs because we are proving a concept that will be helpful to us in other areas, or are seeking a significantly larger follow up contract with the customer. In other instances we may perform research contracts that have significant positive margins because we are able to capitalize on work that we have done and knowledge that we have gained in the past. At the present stage of our development, it is more meaningful to look at total research and development costs in conjunction with revenues than to look at solely internally funded research projects and the cost of research associated with revenue producing contracts. We have, however, broken out some of our costs in the R&D discussion below.

Research and development. Following is a summary of research and development expenditures for the past three years.

	<u>2013</u>	<u>2012</u>	<u>2011</u>
Direct Materials – Funded Projects	189,625	405,014	1,016,803
Direct Materials – Internal Projects	110,219	422,675	486,836
Direct Subcontractors – Funded Projects	327,455	321,332	236,826
Direct Subcontractors – Internal Projects	–	–	18,813
Direct Labor - Funded Projects	877,466	734,263	1,030,037
Direct Labor – Internal Projects	209,513	552,330	398,569
Overhead Labor	302,265	296,450	339,343
Benefits	433,545	634,037	768,727
Facilities and supplies	762,572	937,894	1,006,203
Other Overhead	111,535	167,213	215,780
Total Research and development	<u>\$ 3,324,195</u>	<u>\$ 4,471,208</u>	<u>\$ 5,517,937</u>

Our research and development spending varies with revenue, as a significant portion of our spending is on funded programs. Overall, in 2013 we focused on cost reductions and elimination of spending not related to the generation of revenue. Our spending on internal projects in 2013 was significantly down from 2012 and was largely in support of potential product sales – working with potential customers, tailoring our technology to products, and providing samples, as well as continued refinement of our licensed products, as opposed to new research. Subcontractors are usually involved in specific projects and the amount spent on subcontractors depends on the type of contracts that we have in process at any particular time.

We intend to pursue further cost cuts in 2014, and we expect total research and development spending in 2014 to be similar to that of 2013, despite higher expected revenues. We expect the increased costs related to increased revenues to be offset by additional cost reductions.

We expect to continue to incur substantial expenses in support of additional research and development activities related to the commercial development of our technologies, as long as we have the revenues to support it. If research revenue does not materialize as expected at the present time, we would reduce research expenditures accordingly.

Selling, general, and administrative. Following are some key components of selling, general, and administrative expense:

	<u>2013</u>	<u>2012</u>	<u>2011</u>
Labor and benefits	\$ 1,429,800	\$ 1,525,923	\$ 1,162,202
Board of Director costs	\$ 169,773	\$ 180,038	\$ 180,153
Professional fees	\$ 203,563	\$ 876,964	\$ 474,764
Patent expense	\$ 424,239	\$ 629,985	\$ 744,658
Trade shows and conferences	\$ 40,540	\$ 83,734	\$ 134,695
Other S, G, & A	\$ 249,121	\$ 503,652	\$ 475,922
Total selling, general, and administrative	<u>\$ 2,517,036</u>	<u>\$ 3,800,296</u>	<u>\$ 3,172,394</u>

The most significant cost in selling, general and administrative expense is labor and benefits. It increased significantly in 2012 as a result of new hires, in particular in the sales and marketing area. It was reduced in 2013, primarily as a result of the vacancy in the CEO position. The amount will decrease significantly further in 2014 as the result of staff reductions late in 2013, the savings from which will show up in 2014.

Board of Director costs were similar in all years. The reduction in 2013 is the result of the resignation of one of the Directors in 2013.

We also spend a significant amount on patents. Our patent expense decreased from approximately \$745,000 in 2011 to approximately \$425,000 in 2013 as we did an extensive review of our portfolio and discontinued maintenance payments on old patents that we considered to no longer have value to us. We expect patent expense to decrease significantly further in 2014, as we continue to cull old patents that we believe no longer have value from our patent portfolio, and as we become more selective in our foreign filings.

We expect total selling, general, and administrative expenses to be approximately \$1.3 million in 2014, as we focus on keeping costs low to match our revenue levels. We will have the full year effect of staff reductions implemented in 2013, additional staff reductions anticipated in 2014, and anticipated cuts in salary levels in 2014.

Other income. Following is a summary of other income for the last three fiscal years.

	2013	2012	2011
Interest expense from capital leases and other	\$ (6,226)	\$ (11,025)	\$ (6,274)
Interest expense associated with notes payable	\$ (194,296)	\$ (187,797)	\$ (135,879)
Interest expense associated notes payable discount	\$ (1,022,100)	\$ (253,779)	\$ (241,939)
Interest income	\$ 3,803	\$ 1,587	\$ 16,714

Our convertible notes bear interest at a rate of 8%. In addition, the value of the conversion feature was recorded as a discount at the time of issuance and is being amortized to expense over the life of the notes. We also lowered the conversion price on certain notes in 2013 to induce conversion and recognized additional discount at the time of conversion. We expect approximately \$160,000 of interest expense, including discount amortization, on notes in 2014.

Our interest income is earned as a result of the investment of excess cash balances. Our interest income is negligible in all years, and we expect it to be negligible in 2014.

Overview

The largest single component of cost that we incur is payroll related expense. Excluding the cost related to stock based compensation, we incurred payroll related expense of approximately \$3.3 million in 2011, \$3.6 million in 2012, and \$3.2 million in 2013. The increase in 2012 was primarily related to increased spending in the sales and marketing area. We expect payroll related expense in 2014 to decrease to approximately \$2.1 million, as a result of our cost reduction efforts, which involve the full year effect of cuts made in 2013, reduction in salary rates in 2014, and further staff reductions.

We expect our overall spending rate for 2014, excluding any revenue, to average approximately \$375,000 per month. Based on this, we believe we can reach breakeven at our targeted revenue level of \$4.7 million, but there is no assurance that this will occur, or that we will achieve that level of revenue. This expenditure level is based on anticipated revenue levels. If these revenue levels are not attained, we will not incur many of these expenses, and our expense level will also be lower than anticipated.

SEASONALITY AND INFLATION

Applied Nanotech Holdings' business is not seasonal in nature. Management believes that Applied Nanotech Holdings' operations have not been affected by inflation.

ACCOUNTING PRONOUNCEMENTS

There are no recently issued accounting pronouncements which have not been implemented in our financial statements that would have a material impact on our financial statements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

We do not use any derivative financial instruments for hedging, speculative, or trading purposes. Our exposure to market risk is currently immaterial.

Item 8. *Financial Statements and Supplementary Data*

**INDEX TO CONSOLIDATED FINANCIAL STATEMENTS
OF APPLIED NANOTECH HOLDINGS, INC.**

CONSOLIDATED FINANCIAL STATEMENTS

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders
Applied Nanotech Holdings, Inc.
Austin, Texas

We have audited the accompanying consolidated balance sheets of Applied Nanotech Holdings, Inc. and Subsidiaries as of December 31, 2013 and 2012, and the related consolidated statements of operations, shareholders' equity (deficit), and cash flows for the years in the three-year period ended December 31, 2013. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Applied Nanotech Holdings, Inc. and Subsidiaries as of December 31, 2013 and 2012, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2013, in conformity with U.S. generally accepted accounting principles.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in note 1 to the consolidated financial statements, the Company has experienced recurring losses from operations and negative cash flow from operations. This raises substantial doubt about the Company's ability to continue as a going concern. Management's plan in regard to these matters is also described in note 1 to the consolidated financial statements. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ Padgett, Stratemann & Co, LLP

Padgett, Stratemann & Co, LLP
San Antonio, Texas
February 25, 2014

APPLIED NANOTECH HOLDINGS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

ASSETS

	December 31,	
	2013	2012
Current assets:		
Cash and cash equivalents	\$ 119,551	\$ 331,579
Accounts receivable, trade – net of allowance for doubtful accounts	462,964	369,409
Prepaid expenses and other current assets	85,499	692,541
Total current assets	668,014	1,393,529
Property and equipment, net	157,772	270,693
Other assets	27,114	28,591
Total assets	\$ 852,900	\$ 1,692,813
LIABILITIES AND SHAREHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	\$ 642,486	\$ 813,505
Convertible notes payable, net of discount of \$50,211 and \$45,000	1,859,912	755,800
Obligations under capital lease	10,427	56,680
Accrued liabilities	1,580,194	855,264
Deferred revenue	143,323	103,370
Total current liabilities	4,236,342	2,584,619
Obligations under capital lease, long-term	–	10,480
Convertible notes payable, net of discount of \$0 and \$133,186	–	1,631,072
Total long-term liabilities	–	1,641,552
Total liabilities	4,236,342	4,226,171
Commitments and contingencies	–	–
Shareholders' deficit :		
Preferred stock, \$1.00 par value, 2,000,000 shares authorized; no shares issued and outstanding	–	–
Common stock, 160,000,000 shares authorized, \$.001 par value, 147,825,202 and 119,699,286 shares issued and outstanding, respectively	147,825	119,699
Additional paid-in capital	117,595,024	115,332,346
Accumulated deficit	(121,126,291)	(117,985,403)
Total shareholders' deficit	(3,383,442)	(2,533,358)
Total liabilities and shareholders' deficit	\$ 852,900	\$ 1,692,813

See notes to consolidated financial statements.

APPLIED NANOTECH HOLDINGS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

	Year ended December 31,		
	<u>2013</u>	<u>2012</u>	<u>2011</u>
Revenues			
Contract research	\$ 1,054,305	\$ 309,274	\$ 1,102,428
Government contracts	2,048,840	1,733,728	2,956,717
License fees and royalties	488,936	1,183,453	1,999,638
Product sales	286,622	228,200	186,267
Other	39,659	138,713	242,411
Total revenues	<u>3,918,362</u>	<u>3,593,368</u>	<u>6,487,461</u>
Operating costs			
Research and development	3,324,195	4,471,208	5,517,937
Selling, general and administrative expenses	2,517,036	3,800,296	3,172,394
Total operating costs	<u>5,841,231</u>	<u>8,271,504</u>	<u>8,690,331</u>
Gain on sale of assets	800	—	—
Loss from operations	<u>(1,922,069)</u>	<u>(4,678,136)</u>	<u>(2,202,870)</u>
Other income (expense):			
Interest income	3,803	1,587	16,714
Interest expense	(1,222,622)	(452,601)	(384,092)
Total other income (expense)	<u>(1,218,819)</u>	<u>(451,014)</u>	<u>(367,378)</u>
Loss before taxes	<u>(3,140,888)</u>	<u>(5,129,150)</u>	<u>(2,570,248)</u>
Provision for taxes	—	—	—
Net loss applicable to common shareholders	<u>\$ (3,140,888)</u>	<u>\$ (5,129,150)</u>	<u>\$ (2,570,248)</u>
Loss per share			
Basic and diluted	<u>\$ (0.02)</u>	<u>\$ (0.04)</u>	<u>\$ (0.02)</u>
Weighted average common shares outstanding			
Basic	<u>131,744,328</u>	<u>119,311,519</u>	<u>116,851,588</u>
Diluted	<u>131,744,328</u>	<u>119,311,519</u>	<u>116,851,588</u>

See notes to consolidated financial statements.

APPLIED NANOTECH HOLDINGS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY (DEFICIT)

	Preferred		Common		Additional Paid-In Capital	Accumulated Deficit	Total
	Shares	Amount	Shares	Amount			
Balance December 31, 2010	–	\$ –	109,967,628	\$ 109,968	\$ 110,986,117	\$ (110,286,005)	\$ 810,080
Issuance of common stock options as compensation	–	–	–	–	462,431	–	462,431
Employee restricted stock, including committed to be released shares	–	–	103,772	104	185,177	–	185,281
Issuance of shares upon conversion of accounts payable	–	–	300,752	301	119,699	–	120,000
Issuance of common shares for cash	–	–	6,578,948	6,579	2,493,421	–	2,500,000
Issuance of common stock as the result of the exercise of employee stock options	–	–	200,454	200	51,551	–	51,751
Conversion of notes	–	–	1,764,144	1,764	355,630	–	357,394
Net loss	–	–	–	–	–	(2,570,248)	(2,570,248)
Balance December 31, 2011	–	\$ –	118,915,698	\$ 118,916	\$ 114,654,026	\$ (112,856,253)	\$ 1,916,689
Issuance of shares upon conversion of accounts payable	–	–	494,949	495	119,505	–	120,000
Issuance of common stock options as compensation	–	–	–	–	223,025	–	223,025
Conversion rights associated with issuance of convertible notes	–	–	–	–	288,475	–	288,475
Employee restricted stock, including committed to be released shares	–	–	143,333	143	24,211	–	24,354
Conversion of notes	–	–	145,306	145	23,104	–	23,249
Net loss	–	–	–	–	–	(5,129,150)	(5,129,150)
Balance December 31, 2012	–	\$ –	119,699,286	\$ 119,699	\$ 115,332,346	\$ (117,985,403)	\$ (2,533,358)
Issuance of shares upon conversion of accounts payable	–	–	2,600,000	2,600	107,400	–	110,000
Issuance of common stock options as compensation	–	–	–	–	46,606	–	46,606
Conversion of notes	–	–	24,182,866	24,183	1,257,098	–	1,281,281
Conversion rights associated with issuance of convertible notes	–	–	–	–	777,209	–	777,209
Issuance and exercise of warrants	–	–	470,085	470	55,946	–	56,416
Employee restricted stock, including committed to be released shares	–	–	872,965	873	18,419	–	19,292
Net loss	–	–	–	–	–	(3,140,888)	(3,140,888)
Balance December 31, 2013	–	\$ –	147,825,202	\$ 147,825	\$ 117,595,024	\$ (121,126,291)	\$ (3,383,442)

See notes to consolidated financial statements.

APPLIED NANOTECH HOLDINGS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2013	2012	2011
Cash flows from operating activities:			
Net loss	\$ (3,140,888)	\$ (5,129,150)	\$ (2,570,248)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization expense	95,721	111,327	75,741
Gain on sale of equipment	(800)	—	—
Stock and options issued for services	65,898	247,379	647,712
Amortization of discount on debt	1,022,100	253,779	241,939
Changes in assets and liabilities:			
Accounts receivable, trade	(93,555)	470,454	(82,356)
Prepaid expenses and other assets	608,519	(539,366)	(42,749)
Accounts payable	(61,019)	609,172	(101,640)
Accrued expenses	848,201	508,196	(155,554)
Deferred revenue and other current liabilities	39,953	(96,630)	(120,000)
Total adjustments	<u>2,525,018</u>	<u>1,564,311</u>	<u>463,093</u>
Net cash used in operating activities	<u>(615,870)</u>	<u>(3,564,839)</u>	<u>(2,107,155)</u>
Cash flows from investing activities:			
Proceeds from sale of equipment	18,000	—	—
Capital expenditures	—	(50,398)	(78,138)
Net cash provided by (used in) investing activities	<u>18,000</u>	<u>(50,398)</u>	<u>(78,138)</u>
Cash flows from financing activities:			
Proceeds from issuance of common stock	—	—	2,551,751
Proceeds of long term debt	513,375	935,700	—
Repayment of capital lease obligations and long term debt	(127,533)	(60,667)	(27,245)
Net cash provided by financing activities	<u>385,842</u>	<u>875,033</u>	<u>2,524,506</u>
Net increase (decrease) in cash and cash equivalents	<u>(212,028)</u>	<u>(2,740,204)</u>	<u>339,213</u>
Cash and cash equivalents, beginning of year	331,579	3,071,783	2,732,570
Cash and cash equivalents, end of year	<u>\$ 119,551</u>	<u>\$ 331,579</u>	<u>\$ 3,071,783</u>

See notes to consolidated financial statements.

APPLIED NANOTECH HOLDINGS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Organization, Operations, and Liquidity:

Applied Nanotech Holdings, Inc. and its subsidiaries (“the Company”) are engaged in using nanotechnology to develop products for applications in the thermal management, nanomaterials, nanosensors, and nanoelectronics areas, as well as the performance of significant research in those areas. We intend to obtain development revenues for applying our technology to specific applications for our development partners, to obtain royalty revenues from licensing this technology to those partners and others, and to sell products using this technology.

We incurred an operating loss in 2013, but expect to at least breakeven in 2014; however, unless we are able to operate profitably on a continuous basis as a result of revenues from either reimbursed research or license agreements, we likely will be required to seek additional funds through the equity markets, or raise funds through debt instruments to allow us to maintain operations. There is no assurance that additional license agreements will be signed, that commercialization of our technology and products will result in income from operations, or that funds will be available in the equity or debt markets, if needed. Management believes it will be able to operate at breakeven and if not, be able to secure additional funding, if needed.

The principal source of our liquidity since the time of our initial public offering in 1993 has been from the funds received from exempt offerings of common stock, preferred stock, and convertible debt securities, as well as license and development revenues. We may receive additional funds from the exercise of employee stock options. We may also seek to increase our liquidity through bank borrowings or other financings, although this is not likely. There can be no assurance that any of these financing alternatives can be arranged on commercially acceptable terms. We believe that our success in reaching sustained profitability will depend on the viability of our technology and products using that technology, their acceptance in the marketplace, and our ability to obtain additional debt or equity financings in the future, if needed.

A portion of our research and development has been funded by others. To the extent that other funding is not available, research and development may be internally funded by us or curtailed. Our primary objective is to focus our resources on projects for which we receive funding and we have significantly curtailed our research in each of the last two years.

The Company has a history of net losses and negative cash flow from operations. We have had losses in each of the last three years, but we have a plan to reach at least breakeven in 2014. We have also signed a letter of intent to merge with Nanofilm, Ltd., a privately held nanotechnology company. The accompanying financial statements have been prepared in conformity with generally accepted accounting principles, which contemplate continuation of the Company as a going concern, and do not include any adjustments that may be required if it were unable to continue as a going concern. Management believes that actions currently being taken will allow the Company to achieve profitability and allow the Company to continue as a going concern. These actions include both cutting expenses and merging with Nanofilm, which will allow for further expense cuts.

2. Summary of Significant Accounting Policies:

Principles of consolidation

The accompanying consolidated financial statements include the accounts of the Company and its subsidiaries, Applied Nanotech, Inc. (“ANI”), EZDiagnostix, Inc. (“EZDX”), after the elimination of all significant intercompany accounts and transactions. ANI is primarily involved in developing products for applications using the Company’s proprietary nanocomposites, nanosensors, nanoelectronics, thermal management, and field emission technologies. EZDX was focused on commercializing the Company’s sensor technology, but ceased operations in 2013.

APPLIED NANOTECH HOLDINGS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(CONTINUED)

2. Summary of Significant Accounting Policies (continued) :

Management's estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, and expenses, as well as the disclosure of contingent assets and liabilities. Actual results could differ from those estimates. Significant estimates include deferred tax asset reserves, bad debt reserves, assumptions used in calculating share based compensation, and depreciation.

Revenue recognition

Our revenues include reimbursements under agreements to perform research and development for government agencies and others. We do not perform research contracts that are contingent upon successful results. Larger projects are sometimes broken down in phases to allow the customer to determine at the end of each phase if they wish to move to the next phase. The agreements with federal government agencies generally provide that, upon completion of a technology development program, the funding agency is granted a royalty-free license to use any technology developed during the course of the program for its own purposes, but not any preexisting technology that we use in connection with the program. We retain all other rights to use, develop, and commercialize the technology and recognize revenue when it is earned pursuant to the terms of the contract. Agreements with nongovernmental entities generally allow the entity the first opportunity to license the technology from us upon completion of the project.

The Company's revenues also include royalties from licensing its technology, revenue from the sale of products, and other miscellaneous revenues. Many of the Company's projects may involve a combination of these types of revenues. Revenues are recognized as follows:

Government Contracts - Revenue from government contracts is recognized when it is earned pursuant to the terms of the contract. Long-term projects, such as SBIR Phase II grants that usually range from \$500,000 to \$1,000,000 in total and usually extend for a period of approximately two years, are generally based on reimbursement of costs. These projects are usually billed monthly based on costs, hours, or some other measure of activity during the month. As a general rule, we recognize revenue on these contracts based on the activity level of the contract during the period as compared with total estimated activity. This generally would be a measure of proportional performance on the contract, such as cost incurred compared with total expected cost. The recognition of revenue may not correspond with the billings allowable under the contract. To the extent that billings exceed revenue earned, a portion of the revenue is deferred until such time as it is earned. Short-term projects, such as SBIR Phase I grants that usually are less than \$100,000 and usually extend for a period of approximately 6 months, are billed at periodic intervals as specified in the contract.

Other Research Contracts - Revenue from nongovernmental contracts is recognized when it is earned pursuant to the terms of the contract. Each contract is unique and tailored to the needs of the customer and goals of the project. Some contracts may call for a monthly payment for a fixed period of time. Other contracts may be for a fixed dollar amount with an unspecified time period, although there is frequently a targeted completion date. These contracts generally involve some sort of up-front payment. Some contracts may call for the delivery of samples, or may call for the transfer of equipment or other items developed during the project to the customer. As a general rule, we recognize revenue on long term contracts based on the activity level of the contract during the period as compared with total estimated activity. This generally would be a measure of proportional performance on the contract, such as cost incurred compared with total expected cost. However, to the extent there are other significant contract provisions such as the delivery of more than a nominal amount of samples or delivery of equipment, we would modify this as appropriate. For other short term contracts, generally less than \$50,000, we recognize revenue when it is billed under the terms of the contract.

Royalty Revenue - The Company recognizes royalty revenues based on the shipment of products by a licensee at the time the underlying product upon which the royalty is based is shipped by the entity paying the royalty, if that is able to be ascertained at the time. For minimum royalty payments paid by a licensee that are required for the licensee to maintain exclusivity, royalty revenue is recognized at the time the minimum royalty payment is due, which normally corresponds somewhat with the time that the payment is received. The Company recognizes license fees due at the time of the signing of a royalty agreement when the licensee has an enforceable commitment to pay. This normally corresponds with, or is reasonably close to, the time of receipt of the payment.

APPLIED NANOTECH HOLDINGS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(CONTINUED)

2. Summary of Significant Accounting Policies (continued) :

Product Sales - Revenue from product sales is recognized at the time the product shipped. The Company's primary business is research and development and the licensing of its technology, not the sale of products. Product sales are generally insignificant in number, and are usually limited to the sale of samples, proofs of concepts, prototypes, or other items resulting from its research.

Other Revenue - Other miscellaneous revenue is recognized as deemed appropriate given the facts of the situation and is generally not material.

Cash and cash equivalents

The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents.

Accounts receivable

The Company occasionally provides services or sells products to others on credit; however most services or sales are to large financially stable companies, or the U.S. Federal government. It is the Company's policy to record reserves for potential credit losses. Since inception, the Company has experienced minimal credit losses. The Company considered no reserves to be necessary for any of the years presented.

Property and equipment

Property and equipment are recorded at cost, net of accumulated depreciation and amortization. Depreciation is provided on the straight-line method over the estimated useful lives of the assets, which range from three to seven years, or the remaining lease term for leasehold improvements, if less. Expenses for major renewals and betterments that extend the original estimated economic useful lives of the applicable assets are capitalized. Expenses for normal repairs and maintenance are charged to operations as incurred. The cost and related accumulated depreciation of assets sold or otherwise disposed of are removed from the accounts, and any gain or loss is included in income.

Impairment

At each balance sheet date, the Company evaluates the carrying amount and the amortization period for its long-lived assets. If an indicator of impairment exists, it is recorded at that time. There have been no impairment charges recorded in any of the years presented in these consolidated financial statements.

Income taxes

The Company accounts for income taxes using the asset and liability method. Under this method, deferred income taxes are recorded to reflect the tax consequences on future years of temporary differences between the tax basis of the assets and liabilities and their financial amounts at year-end. The Company provides a valuation allowance to reduce deferred tax assets to their net realizable value. The Company has determined that no reserve for uncertain tax positions is required; however, tax years 2010 through 2013 remain open for examination by the taxing authorities.

Research and development expenses

Costs of research and development for Company-sponsored projects are expensed as incurred.

APPLIED NANOTECH HOLDINGS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(CONTINUED)

2. Summary of Significant Accounting Policies (continued) :

Disclosures about fair value of financial instruments

The following methods and assumptions were used to estimate the fair value of each class of certain financial instruments for which it is practicable to estimate that fair value. For cash equivalents and accounts receivable, the carrying amount approximates fair value because of the short-term nature of these instruments. The fair value of the Company's capital lease obligations and notes payable is estimated based on the quoted market prices for the same, or similar issues, or on the current rates offered to the Company for obligations of the same remaining maturities with similar collateral requirements. For all years presented, the fair value of the Company's capital lease obligations and notes payable approximate their carrying values.

Income (loss) per common share

Basic per share amounts are computed, generally, by dividing net income or loss by the weighted average number of common shares outstanding. Diluted per-share amounts assume the conversion, exercise, or issuance of all potential common stock instruments unless the effect is anti-dilutive, thereby reducing the loss or increasing the income per common share. As described in Notes 8, 9 and 10, the Company had options and warrants outstanding as indicated in the table below. In addition, the Company has convertible notes payable, which if converted, would have resulted in additional shares outstanding as indicated in the table below.

However, because of the interest expense associated with the notes payable, inclusion of the notes payable in the calculation of diluted earnings per share would have an anti-dilutive effect. In addition, since the Company incurred losses in all years, the inclusion of any potential common shares in the calculation of diluted loss per-share would have an anti-dilutive effect in those years. Basic and diluted per-share amounts are the same in all years presented.

	2013	2012	2011
Options	5,967,339	6,447,254	6,378,495
Warrants	-	181,524	181,524
Weighted average exercise price	\$0.62	\$0.80	\$0.82
Convertible notes payable	23,283,932	16,469,961	9,079,530

Recently issued accounting pronouncements

There are no recently issued accounting pronouncements which have not been implemented in our consolidated financial statements that would have a material impact on our financial statements.

APPLIED NANOTECH HOLDINGS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(CONTINUED)

2. Summary of Significant Accounting Policies (continued) :

Share-based payments

The Company has a stock based compensation plan described in greater detail in Note 9 to these financial statements. The Company uses the fair value method to account for stock-based compensation. The fair value of each award is estimated on the date of each grant. For restricted stock the fair market value is based on the market value of the stock granted on the date of the grant. For options, it is estimated using the Black Scholes option pricing model that uses the assumptions noted in the following table. Estimated volatilities are based on the historical volatility of the Company's stock over the same period as the expected term of the options. The expected term of options granted represents the period of time that options granted are expected to be outstanding. The Company uses historical data to estimate option exercise behavior and to determine this term. The risk free rate used is based on the U.S. Treasury yield curve in effect at the time of the grant using a time period equal to the expected option term. The Company has never paid dividends and does not expect to pay any dividends in the future.

	<u>2013</u>	<u>2012</u>	<u>2011</u>
Expected dividend yield	0%	0%	0%
Risk free interest rate	0.39%-0.51%	0.39%-0.51%	0.35%-1.28%
Expected option term (in years)	3.5	3.5 – 5.0	3.5 – 5.0
Turnover/forfeiture rate	0%	0%	0%
Expected volatility	94% - 101%	94% - 100%	93% - 99%
Weighted-average volatility	96%	96%	96%

The Black-Scholes option valuation model and other existing models were developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. These option valuation models require the input of, and are highly sensitive to, subjective assumptions including the expected stock price volatility. Applied Nanotech Holdings' stock options have characteristics significantly different from those of traded options, and changes in the subjective input assumptions could materially affect the fair value estimate.

3. Operating Lease Obligations :

The Company leases various facilities and equipment under operating lease agreements having terms expiring at various dates through 2019. Rental expense was \$281,449; \$274,538; and \$251,566 for the years ended December 31, 2013, 2012, and 2011, respectively.

Future minimum lease payments under operating leases that have initial or remaining noncancellable lease terms of one year or more at December 31, 2013, were as follows:

2014	220,896
2015	200,424
2016	199,742
2017	186,804
2018	191,744
2019	32,122
Total future minimum lease payments	\$ 1,031,732

APPLIED NANOTECH HOLDINGS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(CONTINUED)

4. Convertible Notes Payable:

	2013	2012
Notes payable to shareholders, convertible to common stock, along with accrued interest, at fixed rates ranging from \$0.08 to \$0.25 per share. In both years, three notes totaling \$500,000 are secured by all assets of the Company, with the remainder of the notes unsecured. The notes bear interest at a rate of 8%. A total of \$420,000 of the notes are demand notes, and \$1,293,058 of the notes are due in January 2014. The notes due in January 2014 have been extended to March 2014.	\$ 1,713,058	\$ 2,455,058
Unsecured notes payable, convertible to common stock, along with accrued interest, at variable rates at a discount to market at the time of conversion under five separate note agreements. Discounts range from 30% to 50% from market as defined by the specific note agreement. Market is defined based on a trailing average or specific price covering the preceding 5-15 days at the time of conversion. Notes can be prepaid in cash with prepayment penalties ranging from 0-50% of principal outstanding at the time of payment. The notes bear interest at rates ranging from 5% to 8%. The notes are due at various dates in 2014.	197,065	110,000
Total face amount of notes payable	1,910,123	2,565,058
Less unamortized discount	50,211	178,186
Net notes payable	1,859,912	2,386,872
Less current portion	1,859,912	755,800
Long-term notes payable	\$ —	\$ 1,631,072

The convertible notes above were issued from 2009 through 2013. At the time of issuance, the value of the conversion rights were recorded as a discount to the note and amortized over the term of the notes. In addition, during 2013, the company lowered the conversion price of certain notes to below market prices to induce conversion. The value of this reduced conversion rate was recognized as an expense at the time of conversion. The following table shows the notes issues, converted, discount recorded, and discount amortized for each of the last years, as well as the unamortized discount at the end of each year.

	Year Ended December 31,		
	2013	2012	2011
Face amount of notes issued	\$ 553,875	\$ 945,700	\$ —
Discount recorded at time of issuance	\$ 409,577	\$ 298,475	\$ —
Discount recorded at time of conversion	\$ 428,132	\$ —	\$ —
Discount amortized to interest expense	\$ 1,022,100	\$ 253,779	\$ 241,939
Face amount of notes converted to common stock	\$ 1,148,010	\$ 19,200	\$ 326,000
Unamortized discount at December 31	\$ 50,211	\$ 178,186	\$ 133,490

APPLIED NANOTECH HOLDINGS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(CONTINUED)

5. Capital Lease Obligations:

Capital leases payable at December 31, 2013 and 2012 consisted of the following:

	<u>2013</u>	<u>2012</u>
Capital lease equipment due in monthly installments of \$3,322 through February 2014. The equipment value and lease obligation was determined using a discount rate of 12.35%. The equipment is included in property and equipment at December 31, 2013 at a cost of \$118,700 and with accumulated amortization of \$58,150.	\$ 6,644	\$ 46,508
Capital lease equipment due in monthly installments of \$816 through July 2013. The equipment value and lease obligation was determined using a discount rate of 14.08%. Ownership of the equipment transferred to the Company in July 2013.	\$ —	\$ 5,712
Capital lease equipment due in monthly installments of \$1,338 through March 2014. The equipment value and lease obligation was determined using a discount rate of 11.46%. The equipment is included in property and equipment at December 31, 2013 at a cost of \$33,177, with accumulated amortization of \$11,612.	4,014	20,070
Total capital leases	10,658	72,290
Less interest	231	5,130
Less current portion	10,427	56,680
Capital lease obligations, long-term	<u>\$ —</u>	<u>\$ 10,480</u>

These leases result in minimum payments of \$10,658 in 2014.

APPLIED NANOTECH HOLDINGS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(CONTINUED)

6. Details of Certain Balance Sheet Accounts:

Additional information regarding certain balance sheet accounts at December 31, 2013 and 2012 is as follows:

	December 31,	
	2013	2012
Property and equipment:		
Plant and equipment	\$ 656,072	\$ 822,273
Furniture and office equipment	106,821	110,534
Leasehold improvements	41,627	41,627
Total carrying cost	804,520	974,434
Less accumulated depreciation	(646,748)	(703,741)
	<u>\$ 157,772</u>	<u>\$ 270,693</u>
Accrued liabilities:		
Payroll and related accruals	\$ 1,120,045	\$ 468,441
Other (primarily interest)	460,149	386,823
Total	<u>\$ 1,580,194</u>	<u>\$ 855,264</u>

Depreciation and amortization for the years ended December 31, 2013, 2012, and 2011 was \$95,721; \$111,327; and \$75,741, respectively. Equipment held under capital leases and accumulated amortization on that equipment is included in these totals.

7. Income Taxes:

The components of deferred tax assets (liabilities) at December 31, 2013 and 2012, were as follows:

	December 31,	
	2013	2012
Deferred tax assets:		
Net operating loss carry forwards	\$ 22,974,000	\$ 22,173,000
Stock based compensation	2,244,000	2,228,000
Partnership asset	39,000	39,000
Capitalized intangible assets	8,000	14,000
Difference in tax basis of assets	18,000	6,000
Foreign tax credit	619,000	619,000
Accrued expenses not deductible until paid	448,000	202,000
Total deferred tax assets	<u>26,350,000</u>	<u>25,281,000</u>
Deferred tax liabilities:	<u>—</u>	<u>—</u>
Net deferred tax assets before valuation allowance	26,350,000	25,281,000
Valuation allowance	<u>(26,350,000)</u>	<u>(25,281,000)</u>
Net deferred tax asset	<u>\$ —</u>	<u>\$ —</u>

APPLIED NANOTECH HOLDINGS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(CONTINUED)

7. Income Taxes (continued):

The following is a reconciliation of the amount of the income tax expense (benefit) that would result from applying the statutory federal income tax rates to pretax income (loss) and the reported amount of income tax expense (benefit) for the periods ended December 31, 2013, 2012, and 2011.

	December 31,		
	2013	2012	2011
Expected income tax expense (benefit)	\$ (1,068,000)	\$ (1,744,000)	\$ (874,000)
Non-deductible expenses and miscellaneous	(1,000)	13,000	12,000
Expiration of tax credit carryforwards	-	-	61,000
Expiration of NOL carryforwards	-	2,142,000	4,055,000
Increase (decrease) in valuation allowance	1,069,000	(411,000)	(3,254,000)
Total tax	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

As of December 31, 2013, the Company had net operating loss carry forwards of approximately \$68 million that expire from 2017 through 2032, that are available to offset future taxable income. Additionally, the Company has tax credit carry forwards related to foreign taxes of \$619,000 that expire in 2019.

Under certain circumstances issuance of common shares can result in an ownership change under Internal Revenue Code Section 382 which limits the Company's ability to utilize carry forwards from prior to the ownership change. Any such ownership change resulting from stock issuances could limit the Company's ability to utilize any net operating loss carry forwards or credits generated before this change in ownership. These limitations can limit both the timing of usage of these laws, as well as the loss of the ability to use these net operating losses. If the Company completes its contemplated merger, it is likely the ability to use these losses will be limited.

8. Capital Stock:

Preferred stock

The Company has authorization for the issuance of 2,000,000 shares of \$1.00 par value preferred stock. There were no shares of preferred stock outstanding for any of the years presented.

Common stock

The Company has authorization for the issuance of 160,000,000 shares of \$0.001 par value common stock.

No shares were issued in private placements in 2012 or 2013; however, during 2011, the Company issued shares of its common stock in a private placement in an exempt offering under Regulation D of the Securities Act of 1933. The 2011 shares were issued at the market price at the time of the offering and have not been registered for sale. A total of 6,578,948 shares were issued and proceeds of \$2.5 million were received.

Committed to be released common shares

As discussed in Note 9, the Company awards restricted stock to employees as compensation. Shares awarded, but not yet issued and outstanding are accounted for as committed to be released shares.

At December 31, 2013, common stock was reserved for the following reasons:

Conversion of notes payable and accrued interest	23,283,932
Exercise and future grants of stock options	<u>10,049,746</u>
Total shares reserved	<u><u>33,333,678</u></u>

APPLIED NANOTECH HOLDINGS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(CONTINUED)

8. Capital Stock (continued):

The shares reserved exceed the shares available for issuance under the current authorized shares. However; the majority of shares issuable upon conversion of the convertible notes are convertible at prices well in excess of the current market price of the stock and are unlikely to be converted. As of December 31, 2013, there are no options with exercise prices at or below the current market price of the stock and options are unlikely to be exercised. The Company intends to request an increase in the number of its authorized shares at its next shareholder meeting.

9. Stock Options:

The Company sponsors a stock-based incentive compensation plan, the 2012 Equity Compensation Plan (the "Plan"), which was established by the Board of Directors of the Company in April 2012. A total of 5,000,000 shares were initially reserved for issuance under the plan. A total of 4,082,407 shares remain available for grant under this plan at December 31, 2013. This plan replaced the 2002 Equity Compensation Plan, which expired in March 2012. The compensation cost that has been charged against income for both plans for the years ended December 31, 2013, 2012, and 2011 was \$65,898; \$247,379; and \$647,712, respectively. No income tax benefit was recognized in the income statement and no compensation was capitalized in any of the years presented.

The plan allows the Company to grant incentive stock options, non-qualified stock options, or restricted stock. The incentive stock options are exercisable for up to ten years, at an option price per share not less than the fair market value on the date the option is granted. The incentive stock options are limited to persons who have been regular full-time employees of the Company or its present and future subsidiaries for more than one (1) year and at the date of the grant of any option are in the employ of the Company or its present and future subsidiaries. Historically, the Company has not granted incentive stock options. Non-qualified options may be granted to any person, including, but not limited to, employees, independent agents, consultants and attorneys, who the Company's Compensation Committee believes have contributed, or will contribute, to the success of the Company. Non-qualified options may be issued at option prices of less than fair market value on the date of grant and are exercisable for up to ten years from date of grant. The option vesting schedule for options granted is determined by the Compensation Committee of the Board of Directors at the time of the grant. The Plan provides for accelerated vesting of unvested options if there is a change in control, as defined in the plan.

The company issues new shares for all options exercised. It does not expect to repurchase any shares to facilitate future option exercises. The following table summarizes information about stock options outstanding, some of which may not ultimately vest, and options currently exercisable under the option plan at December 31, 2013:

Range of Exercise Prices	Options Outstanding			Options Exercisable		
	Number Outstanding at 12/31/13	Wgtd. Avg. Remaining Contractual Life	Wgtd. Avg. Exercise Price	Number Exercisable at 12/31/13	Wgtd. Avg. Remaining Contractual Life	Wgtd. Avg. Exercise Price
\$0.00 - \$0.25	1,054,349	6.1 Years	\$0.19	1,054,349	6.1 Years	\$0.19
\$0.26 - \$0.50	3,546,805	5.3 Years	\$0.37	3,546,805	5.3 Years	\$0.37
\$0.51 - \$1.00	182,748	5.0 Years	\$0.56	182,748	5.0 Years	\$0.56
\$1.01 - \$2.00	588,396	3.0 Years	\$1.32	588,396	3.0 Years	\$1.32
\$2.01 - \$3.00	595,041	1.1 Years	\$2.18	595,041	1.1 Years	\$2.18
Total	5,967,339	4.8 Years	\$0.62	5,967,339	4.8 Years	\$0.62
Aggregate intrinsic value		\$0.00			\$0.00	

APPLIED NANOTECH HOLDINGS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(CONTINUED)

9. Stock Options (continued):

The following is a summary of stock option plan activity:

	Number of Shares	Wgt'd. Ave. Exercise Price
Options outstanding at December 31, 2010	6,222,972	\$0.86
Granted	1,303,498	\$0.43
Exercised	(200,454)	\$0.26
Cancelled	<u>(947,521)</u>	\$0.68
Options outstanding at December 31, 2011	6,378,495	\$0.82
Granted	325,000	\$0.30
Exercised	—	\$0.00
Cancelled	<u>(256,241)</u>	\$0.53
Options outstanding at December 31, 2012	6,447,254	\$0.80
Granted	475,000	\$0.13
Exercised	—	\$0.00
Cancelled	<u>(954,915)</u>	\$1.62
Options outstanding at December 31, 2013	<u>5,967,339</u>	\$0.62

The weighted-average grant-date fair value of options granted during the years ended December 31, 2013, 2012, and 2011 was \$0.05, \$0.19, and \$0.28, respectively. The total intrinsic value of options exercised during the years ended December 31, 2011 was \$59,635. No options were exercised in the years ended December 31, 2012 or 2013. As of December 31, 2013, there was no unrecognized compensation cost related to any non-vested options granted under the plan. The fair value of shares vested during the years ended December 31, 2013, 2012, and 2011 was \$46,606; \$223,025; and \$462,431, respectively.

The 2012 Equity Compensation Plan also allows the issuance of restricted shares of common stock and we granted restricted stock to non-officer employees as part of their compensation. We granted a total of 443,544 shares with a value of \$185,281 in 2011, a total of 125,577 shares with a value of \$24,354 in 2012, and 244,830 shares with a value of \$19,292 in 2013, which represents the market price at the date of grant. Shares are not necessarily issued at the time of the grant. A total of 103,772 shares, 143,333 shares, and 872,965 shares were issued to employees in 2011, 2012, and 2013, respectively, and are included in issued and outstanding shares at the end of each of the respective years. All shares granted have been issued as of December 31, 2013, and there are no remaining committed to be released shares at December 31, 2013.

10. Stock Warrants:

Common stock warrants

In 2007, we issued 1,304,353 warrants in connection with a private placement of the Company's stock. These warrants enabled the holder to purchase shares of the Company's common stock at a price of \$2.50 per share through the earlier of April 2013, or the date that the shares acquired in the private placement were sold by the shareholder. None of the warrants issued were ever exercised and all expired. In January 2013, we issued 1,692,307 warrants in connection with the issuance of a convertible note payable. These warrants enabled the holder to purchase shares of the Company's common stock at a price of \$0.13 per share through January 2018. These warrants were exercised in a cashless transaction in January 2013 whereby 470,085 shares of restricted common stock were issued in full satisfaction of the warrants.

APPLIED NANOTECH HOLDINGS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(CONTINUED)

11. Supplemental Cash Flow Information:

Cash paid for interest was \$46,025; \$6,274; and \$5,764 for 2013, 2012, and 2011, respectively. The following non-cash transactions have been excluded from the accompanying consolidated statement of cash flows:

	2013	2012	2011
Non-cash financing activities:			
Issuance of common shares in payment of accounts payable	\$ 110,000	\$ 120,000	\$ 120,000
Issuance of note payable in payment of accrued interest	\$ 10,000	\$ 32,558	\$ —
Conversion of notes payable and accrued interest	\$ 1,281,281	\$ 23,249	\$ 357,394
Capital lease transactions	\$ —	\$ 28,567	\$ 85,369

12. Retirement Plan:

The Company sponsors a defined contribution 401(k) profit sharing plan. Company contributions are discretionary and no company contributions were made in any of the years presented.

13. Commitments and Contingencies:

Till Keesmann Agreement

In May 2000, we licensed the rights, including the exclusive right to sublicense, to 6 carbon nanotube patents from Till Keesmann. The agreement was amended in 2008 and in May 2010, the sublicensing rights to the patent reverted to Mr. Keesmann. We will receive 50% of any licensing revenue received by Mr. Keesmann up to a maximum of \$1.2 million of revenue to us. In 2008, we also sold a portion of our potential future royalty stream related to the Keesmann patents to IP Verwertungs GmbH (“IPV”) for \$1.4 million. A total of \$1.226 million has been received and the remaining \$174,000 will be offset against future royalties due IPV. IPV will receive 25% of our portion of the Keesmann royalties, if any are received. If we received the maximum potential amount of \$1.2 million from Mr. Keesmann, we would be obligated to pay IPV \$126,000. We believe it is extremely unlikely that we will receive any licensing revenue, or pay any royalties under these agreements.

Research and development commitments

As of December 31, 2013, the Company had several research contracts pending and in process. The total amount of those contracts is \$5,771,084. Of that total, \$2,959,191 has been recognized as revenue and \$2,811,893 will be recognized in the future. The revenue to be recognized from these research contracts in 2014 is expected to exceed the cost of this research during this period.

Government contracts

Governmental contractors are subject to many levels of audit and investigation. Among United States agencies that oversee contract performance are: the Defense Contract Audit Agency, the Inspector General, the Defense Criminal Investigative Service, the General Accounting Office, the Department of Commerce, the Department of Justice and Congressional Committees. The Company’s management believes that an audit or investigation, if any, as a result of such oversight would not have any material adverse effect upon the Company’s financial condition or results of operations.

Legal proceedings

From time to time the Company and its subsidiaries are also defendants in various lawsuits that may arise related to minor matters. It is expected that all such lawsuits will be settled for an amount no greater than the liability recorded in the financial statements for such matters. If resolution of any of these suits results in a liability greater than that recorded, it could have a material impact on the Company.

APPLIED NANOTECH HOLDINGS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(CONTINUED)

13. Commitments and Contingencies (continued):

Authorized shares

The Company has potential commitments to issue shares in excess of its current authorized share limit. It intends to increase its authorized shares at the next shareholder meeting, however; if its share price increases significantly prior to an increase in the authorized limit, the Company may be liable to convertible note holders or optionees for damages equal to their lost profits if it is unable to deliver shares in accordance with its existing agreements.

14. Research and Development Contracts:

The Company makes significant expenditures for research and development. We seek funding for our research and development costs to reduce the cost of such expenditures to the Company. We only seek funding for projects that fit within our strategic vision. A substantial portion of our funded research has been from government contracts. Under government contracts, the government has the right to utilize the results for its purposes, and we have the right to utilize the technology for commercial purposes. Generally, when we contract with other entities, the entity is also conducting its own internal research related to application of our technology to its products and such expenditures by the entity frequently exceeds the amount of funding provided to the Company. Usually the entity has the first opportunity to license the technology at the conclusion of the project, if they desire. The costs of a particular research program may exceed the funding received; however, since the goal of the research is to ultimately lead to a license, our willingness to share part of the development cost is evaluated on a case by case basis.

The following schedule summarizes certain information with respect to research and development contracts:

	2013	2012	2011
Contract research revenues	\$ 3,103,145	\$ 2,043,002	\$ 4,059,145
Direct costs incurred included in research and development expense	\$ 1,303,401	\$ 1,421,542	\$ 2,338,863
Amount of additional funding commitments at December 31	\$ 2,811,893	\$ 2,929,281	\$ 2,268,173

15. Significant Customers:

Applied Nanotech, Inc. received research and development revenues from the U.S. Government in the three years as disclosed on the income statement. In addition to the U.S. Government, the Company had three customers from which it has received in excess of 10% of its consolidated revenues in one or more of the past three years as set forth in the following table.

Customer	Year ended December 31		
	2013	2012	2011
Sichuan Anxian Yinhee Construction and Chemical Company	\$ 260,000	\$ 750,000	\$ 1,500,000
Northeast Gas Association	\$ 567,357	\$ 56,732	\$ 734,428
California Citrus Research Board	\$ 463,448	\$ —	\$ —

The Company does not have any significant receivables from these customers at December 31, of the years presented

APPLIED NANOTECH HOLDINGS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(CONTINUED)

16. Concentrations of Credit Risk:

The Company's financial instruments that are exposed to concentrations of credit risk consist of cash and cash equivalents and receivables. The Company places its cash and cash equivalents with high credit quality financial institutions; however for periods of time during the year, bank balances on deposit were in excess of the Federal Deposit Insurance Corporation insurance limit. There were no funds in excess of the FDIC limit at December 31, 2012 or 2013. There were no funds in excess of the SIPC limit at December 31, 2012 or 2013.

The Company's receivables are uncollateralized and result primarily from its research and development projects performed primarily for U.S. Federal Government Agencies, services performed for large U.S. and multinational corporations, and royalties from large U.S. and multinational corporations. The Company has not incurred any material losses on these receivables.

17. Related Party Transactions:

As of December 31, 2013 and 2012, \$195,000 of the convertible notes payable were payable to Officers of the Company. These notes are convertible at a rate of \$0.25 per share.

18. Quarterly Financial Information (Unaudited):

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total Year
2013					
Revenues	\$ 948,710	\$ 1,066,772	\$ 1,175,214	\$ 727,666	\$ 3,918,362
Operating income (loss)	(666,743)	(480,403)	(217,775)	(557,948)	(1,922,869)
Net (loss)	(1,374,940)	(643,918)	(396,650)	(725,380)	(3,140,888)
Earnings (loss) per share					
Basic and Diluted	(0.01)	(0.00)	(0.00)	(0.01)	(0.02)
2012					
Revenues	\$ 777,136	\$ 1,129,951	\$ 705,505	\$ 980,776	\$ 3,593,368
Operating income (loss)	(1,518,134)	(1,453,482)	(1,114,252)	(592,268)	(4,678,136)
Net (loss)	(1,607,199)	(1,550,805)	(1,245,809)	(725,337)	(5,129,150)
Earnings (loss) per share					
Basic and Diluted	(0.01)	(0.01)	(0.01)	(0.01)	(0.04)
2011					
Revenues	\$ 1,936,981	\$ 1,662,534	\$ 2,249,019	\$ 638,927	\$ 6,487,461
Operating income (loss)	(482,308)	(367,513)	22,350	(1,375,399)	(2,202,870)
Net (loss)	(613,797)	(433,119)	(62,066)	(1,461,266)	(2,570,248)
Earnings (loss) per share					
Basic and Diluted	(0.01)	(0.00)	(0.00)	(0.01)	(0.02)

Annual earnings (loss) per share may not equal the sum of the four quarterly amounts due to rounding.

19. Subsequent Events:

From January 1, 2014 through February 26, 2014, we issued 1.2 million shares of common stock to our patent attorney in payment of an accounts payable of \$30,000 under a longstanding agreement where a portion of the fees are paid in common stock. In addition, we issued 7,492,610 shares of common stock upon conversion of a notes payable with face amounts totaling \$150,815 and accrued interest totaling \$4,016.

In 2014, we received additional funding in the amount of \$55,000 under convertible notes payable.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure .

None

Item 9A. Controls and Procedures.

Management is responsible for establishing and maintaining effective disclosure controls and procedures, as defined under Rule 13a-15 of the Securities Exchange Act of 1934, that are designed to cause the material information required to be disclosed by Applied Nanotech Holdings (the “Company”) in the reports it files or submits under the Securities Exchange Act of 1934 to be recorded, processed, summarized, and reported to the extent applicable within the time periods required by the Securities and Exchange Commission’s rules and forms. In designing and evaluating the disclosure controls and procedures, management recognized that a control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, with a company have been detected.

As of the end of the period covered by this report, the Company performed an evaluation under the supervision and with the participation of management, including the Chief Operating Officer (“COO”) and Chief Financial Officer (“CFO”), of the effectiveness of the design and operation of its disclosure controls and procedures pursuant to Rule 13a-15 of the Securities Exchange Act of 1934. Based upon that evaluation, the COO and CFO concluded that the disclosure controls and procedures were effective at the reasonable assurance level.

Management’s Annual Report on Internal Control over Financial Reporting

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined under applicable Securities and Exchange Commission rules as a process designed under the supervision of the Company’s COO and CFO and effected by the Company’s Board of Directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Company’s financial statements for external purposes in accordance with U.S. generally accepted accounting principles. The Company’s internal control over financial reporting includes those policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and the directors of the Company; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

As of December 31, 2013, management, with the participation of the Company’s COO and CFO, assessed the effectiveness of the Company’s internal control over financial reporting based on the criteria for effective internal control over financial reporting established in “Internal Control — Integrated Framework,” issued by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission. Based on the assessment, management determined that the Company’s internal control over financial reporting was effective as of December 31, 2013.

This annual report does not include an attestation report of the Company’s registered public accounting firm regarding internal control over financial reporting. Management’s report was not subject to attestation by the Company’s registered public accounting firm pursuant to the rules of the Securities and Exchange Commission that permit the Company to provide only management’s report in this annual report.

Changes in Internal Control over Financial Reporting

No changes were made to the Company's internal control over financial reporting (as defined in Rule 13a-15 under the Securities Exchange Act of 1934) during the last fiscal quarter that materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. Other Information.

None

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The following sets forth the names, ages, and certain information concerning the Directors and Executive Officers of Applied Nanotech Holdings.

<u>Name</u>	<u>Age</u>	<u>Position</u>	<u>Director/Officer Since</u>	<u>Term Expires</u>
Dr. Robert Ronstadt	72	Director, Chairman	January 2003	2014
Paul F. Rocheleau	60	Director, Vice Chairman	May 2009	2014
Ronald J. Berman	57	Director	May 1996	2014
Howard Westerman	61	Director	May 2007	2014
David Li	33	Director	March 2011	2014
Dr. Zvi Yaniv	67	Director, President, Chief Operating Officer	July 1996	2014
Douglas P. Baker	57	Director, Chief Financial Officer	June 1996	2014
Dr. Richard Fink	54	Executive Vice President	January 2008	N/A

Dr. Robert Ronstadt has been a Director since January 2003, and Chairman of the Board of Directors since May 2009. Currently he is the co-owner of “*The Journal of Print World*”, a newspaper devoted to works of fine art on paper. As an author, he has written a number of books and articles over the last six years on the high cost of higher education. He holds a doctorate in international business and the management of technology. Prior to retiring in 2006, Dr. Ronstadt was Vice President of Technology Commercialization for Boston University and Director of Boston University’s Technology Commercialization Institute. For seven years, he was CEO and Chairman of Lord Publishing, Inc., a small privately held software and book publishing company, which he cofounded. He’s also held senior academic and administrative positions at the University of Texas in Austin where he was Director of IC² Institute and the J. Marion West Chair of Constructive Capitalism; at Pepperdine University where he was professor of entrepreneurship; and at Babson College in Wellesley Massachusetts where he was a tenured associate professor and recipient of the Leavey Award for Excellence in Private Enterprise Education.

Paul F. Rocheleau has been a Director of the Company since May 2009, and Vice Chairman of the Board since October 2009. He is Chairman of the Board and Chief Investment Officer of Virginia Life Science Investments, LLC. Prior to that he was a managing director at Cary Street Partners, a regional investment banking firm based in Richmond, Virginia. Mr. Rocheleau also serves on the Board of Directors of four specialty materials and medical device companies, and the advisory Board of Apex Systems, an IT staffing company.

Ronald J. Berman has been a Director since May 1996. After graduating law school with honors, Mr. Berman went into the private practice of law from 1980-1987. Mr. Berman co-founded Rock Financial (now Quicken Loans) in 1985 and was a member of its Board of Directors. Mr. Berman cofounded BEG Enterprises and served as its President from 1989 to 1998. Mr. Berman is currently President of R.J. Berman Enterprises, Ltd., a real estate investment company, and practicing law as a sole practitioner. Mr. Berman is a licensed attorney in both the states of Michigan and Florida. Mr. Berman filed for personal bankruptcy in 2011.

Howard Westerman is the Chief Executive Officer of JW Energy Company, a privately held energy development and energy services company headquartered in Dallas, Texas. Mr. Westerman joined JW Energy Company in 1978 and became CEO in 1999. Under his leadership as CEO, the Company’s revenues increased from approximately \$70 million to \$1 Billion. Mr. Westerman is also a member of the Board of Directors of Peerless Manufacturing Company, a global provider of environmental and separation filtration products, listed on the NASDAQ Global Market Exchange. Mr. Westerman also serves on numerous charitable and community boards.

David (Xin) Li has been a Director of the Company since March 2011 and is currently the Deputy Director of Project Development at Sichuan Anxian Yinhee Construction and Chemical Group Co., Ltd. (“YHCC”). Prior to that position, Mr. Li was general manager of Mianyang Vanetta Chemical Industrial Co., Ltd., a subsidiary of YHCC. Mr. Li holds an MSc in Accounting and an MSc in Biochemical Engineering.

Dr. Zvi Yaniv has served as Applied Nanotech Holdings, Inc.'s President and Chief Operating Officer and a Director since July 1996. Dr. Yaniv is also CEO of Applied Nanotech, Inc., the only operating subsidiary of the Company and is responsible for all operating activities of the Company. Dr. Yaniv has degrees in physics, mathematics, and electro-optics as well as a Ph.D. in Physics. Prior to joining the Company, in May 1996, Dr. Yaniv operated a consulting practice and previously was President and CEO of Optical Imaging Systems Inc., a publicly held supplier of flat panel color liquid crystal displays to the avionics and defense industries.

Douglas P. Baker joined the Company as CFO in June 1996, has been a Director since May 2006. Mr. Baker is a Certified Public Accountant and has both a Bachelors in Business Administration and a Masters in Business Administration. Prior to joining the Company, Mr. Baker had prior experience in public accounting at a large regional CPA firm, as CFO of a small privately held company, and as a divisional controller at a large publicly held Company. Mr. Baker is also Chairman of the Board of Directors of Total Health Care, Inc., a non-profit Health Maintenance Organization and has been a member of the Board of Directors of that organization since 1987.

Dr. Richard Fink is Executive Vice President of Applied Nanotech, Inc., a subsidiary of Applied Nanotech Holdings, Inc. Dr. Fink has a Bachelor in Science degree from South Dakota State University and a Masters in Science and Ph.D. in Physics from the University of Illinois and has worked for the Company since 1995. Dr. Fink is also the co-founder of the Nanomaterials Applications Center at Texas State University – San Marcos, and has been chairman of the Texas Chapter of the Society for Information Display since 2004.

The Board of Directors held 15 telephonic meetings and one in-person meeting in 2013 and all members of the Board of Directors attended greater than 75% of the meetings of the board of directors and meetings of the committees of the board on which they served with the exception of Mr. Rocheleau, who attended 71% of the meetings of the board and committees on which he served in 2013. Mr. Rocheleau has failed to attend 75% of the meetings in all years that he has been a Director since 2009.

Shareholder Director Nominating Procedures

The Company has a charter for its nominating committee which can be obtained on the Company's website at www.appliednanotech.net. The Company has a procedure in place for holders of the Company's common stock to recommend nominees to the Company's Board of Directors. These procedures are set forth in Article 9(b) of the Company's Restated Articles of Incorporation (the "Restated Articles"), a copy of which is filed as Exhibit 3(I) to this Annual Report on Form 10-K. Nominations of persons for election to the Board of Directors of the Company may be made at a meeting of shareholders by or at the direction of the Board of Directors or by any shareholder of the Company entitled to vote for the election of Directors at the meeting who complies with the notice procedures set forth in Article 9(b). Such nominations, other than those made by or at the direction of the Board of Directors, shall be made pursuant to timely notice in writing to the Secretary of the Corporation. To be timely, a shareholder's notice shall be delivered to or mailed and received at the principal executive offices of the Company not less than 60 days nor more than 90 days prior to the meeting; provided; however, that in the event that less than 70 days' notice or prior public disclosure of the date of the meeting is given or made to shareholders, notice by the shareholder to be timely must be so received not later than the close of business on the 10th day following the date on which such notice of the date of the meeting was mailed or such public disclosure was made. Such shareholder's notice shall set forth (i) as to each person whom the shareholder proposes to nominate for election or re-election as a Director, (A) the name, age, business address and residence address of such person, (B) the principal occupation or employment of such person, (C) the class and number of shares of the Company which are beneficially owned by such person, and (D) any other information relating to such person that is required to be disclosed in solicitations of proxies for election of Directors, or is otherwise required, in each case pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (including without limitation such person's written consent to being named in the proxy statement as a nominee and to serve as a Director if elected); and (ii) as to the shareholder giving the notice, (1) the name and address, as they appear on the Company's books, of such shareholder and (2) the class and number of shares of the Company which are beneficially owned by such shareholder. No person shall be eligible for election as a Director of the Company unless nominated in accordance with the procedures set forth in Article 9(b) of the Restated Articles. The Chairman of the meeting shall, if the facts warrant, determine and declare to the meeting that a nomination was not made in accordance with the procedures prescribed herein, and if he should so determine, he shall so declare to the meeting and the defective nomination shall be disregarded.

Committees

The Board of Directors has three formal committees. The audit committee consists of Mr. Westerman and Mr. Rocheleau. The audit committee operates without a chairman and held four virtual meetings in 2013. In addition, members of the committee independently reviewed drafts of the quarterly 10-Qs and 10-K prior to filing. The compensation committee consists of Mr. Berman and Mr. Rocheleau. Mr. Berman is chairman of the compensation committee, which held four virtual meetings in 2013. The nominating committee consists of Mr. Westerman. The nominating committee operates without a chairman and did not meet during 2013.

Audit Committee Financial Expert

The Board of Directors has determined that Mr. Westerman and Mr. Rocheleau each qualify as an “audit committee financial expert” under applicable SEC rules and that all members of our audit committee qualify as “independent” as defined under applicable SEC rules. Under the terms of the contemplated merger, if the merger is completed, both Mr. Westerman and Mr. Rocheleau will be compensated for their role in the merger. Pursuant to Sarbanes Oxley rules, neither Mr. Westerman, nor Mr. Rocheleau will qualify as independent for audit committee purposes if the anticipated merger is completed.

Code of Ethics

We have adopted a Code of Ethics within the meaning of Item 406(b) of Regulation S-K of the Securities Exchange Act of 1934. This Code of Ethics applies to all directors, officers, and employees of the Company. A copy of this Code of Ethics is publicly available on our website at www.appliednanotech.net. The company will provide to any person, without charge upon their request, a copy of its code of ethics. Any such request can be made by mail to Mr. Doug Baker, Applied Nanotech Holdings, Inc., 3006 Longhorn Blvd., Suite 107, Austin, TX 78758, or by email to dbaker@appliednanotech.net.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities of Exchange Act of 1934 requires Applied Nanotech Holdings’ officers, Directors, and persons who beneficially own more than 10 % of a registered class of Applied Nanotech Holdings’ common stock, to file reports of ownership and changes in ownership with the Securities and Exchange Commission. Officers, Directors, and beneficial owners of more than 10% of Applied Nanotech Holdings’ common stock are required by the Securities and Exchange Commission regulations to furnish Applied Nanotech Holdings with copies of all Section 16(a) forms that they file.

Based solely on review of the copies of such reports furnished to us, or written representations that no reports were required, we believe that for the period from January 1, 2013 through December 31, 2013, all Officers, Directors, and greater than 10% beneficial owners complied with all Section 16(a) filing requirements applicable to them.

Item 11. Executive Compensation

Compensation Discussion and Analysis

Objectives of Compensation Program

The primary objective of our compensation program for all employees, including for executive officers, is to attract, retain, and motivate qualified individuals and reward them in a manner that is fair to all stakeholders, while at the same time minimizing payroll expense so that we can attain profitability at some point.

Elements of Compensation

There are three main components to our compensation package - base salaries, bonuses (non-equity based incentives), and stock based compensation. A fourth, less significant component is other benefits and perquisites. Our compensation program is designed to be competitive with other employment opportunities and to align the interests of all employees, including executive officers, with the long-term interests of our shareholders.

Base Salaries

We provide our executive officers with a level of cash compensation that is designed to facilitate an appropriate lifestyle and provide a reasonable minimum compensation, yet does not exceed the amount that would be required to replace the executive officer. The actual amount of base salary earned by each named executive officer is set forth in the Summary Compensation Table included later in this section.

The salaries for executive officers were last increased in 2011 based on studies done at the time, as well as in previous years. The salaries for Mr. Baker, Dr. Yaniv, and Dr. Fink were set at annual rates of \$325,000; \$325,000; and \$175,000, respectively in 2011. At the time, these salaries were below market rates for similar positions at similar public companies. In 2012, the Company formed a subsidiary, EZDiagnostix, Inc., and in May 2012, Alan Jernigan was hired as CEO of this subsidiary. Mr. Jernigan was hired through an executive search firm and his base salary was set at an annual rate of \$256,800, based on the market compensation rates for similar executives at the time.

In May 2013, Mr. Baker was asked to resign as CEO by the Board of Directors, but continued as CFO. His salary was reduced from \$325,000 for the combined CEO/CFO role to \$175,000 for the CFO role only. A portion of that salary, \$25,000, is being withheld as a stay bonus and is due in May 2014. This salary level was based on the compensation committee's determination that they would be able to fill the CFO position with someone else for no more than that amount.

To preserve cash, all four executive officers voluntarily deferred a significant portion of their salaries beginning in 2012. In 2012, Mr. Baker and Dr. Yaniv each deferred \$71,534 of salary, Dr. Fink deferred \$25,833, and Mr. Jernigan deferred \$19,500. In 2013, the following additional amounts were deferred: Mr. Baker - \$42,934, Dr. Yaniv - \$128,819, and Dr. Fink - \$44,334. Mr. Jernigan was released by the Company as of August 31, 2013 and received three months of severance. As of December 31, 2013, he is still owed \$53,731 in deferred salary.

Bonuses (Non-Equity Incentives)

We have a formula bonus plan covering all employees, including executive officers. This plan was originally established in 2004 and is based solely on the profitability of the company. This plan is designed to reward all employees when we are successful in reaching profitability. Bonuses have only been paid one time in the ten years that the plan has been in existence and no bonuses were paid in 2011, 2012, or 2013. The maximum bonuses payable under this plan are \$250,000 for the chief executive officer and for the chief operating officer, and \$150,000 for the Chief Financial Officer. The maximum amounts would be payable if our pretax income is equal to, or exceeds \$10 million. For purposes of this plan, pretax income is calculated using the accounting principles in effect at the time the plan was adopted, meaning stock based compensation using fair value is excluded from the calculation. There are no minimum amounts payable under the plan and the target amounts are equal to the maximum amounts payable. The compensation committee of the board of the directors also has the power to award discretionary bonuses; however, no such bonuses were granted in any of the years covered by this report.

Stock Based Compensation

All of our employees participate in our stock based compensation plans and receive awards of non-qualified stock options annually. We use non-qualified options because of the favorable tax treatment to us and the near universal expectation by employees in our industry that they will receive stock options. Historically, the majority of these awards have been performance based awards that only vest upon achievement of specific goals. For non-executive officer employees, these goals tend to be operational oriented goals relating to specific projects or potential projects. For executive officers, these goals have been broader in nature and involve more substantial accomplishments. No options were granted to executive officers in 2013 and an insignificant amount were granted in 2012.

At the present time, we have no formal policy related to stock ownership for executive officers, other than for those officers that are also members of the Board of Directors and are covered under the Board policy, which is described later in this section. In establishing grant levels, we do not consider the equity ownership levels of the executive officer. In general, we do not consider the existence of fully vested prior awards when establishing new grants. However, with newer executive officers, we may consider the lack of prior awards in establishing a higher level of new grants.

Timing of Option Grants

We do not have a formal written policy related to the timing of option grants; however, we do have certain time periods when options are normally granted. At the present time, we do not have any analysts that follow our stock, and the release of our quarterly financial reports normally has no noticeable impact on the price of our stock. As such, we do not have trading windows, nor do we limit option grants to any sort of windows. There are two normal situations where options are granted. The first would be at the time a new employee, including an executive officer, is hired. If a new employee receives options as part of starting employment, those options are granted either at, or shortly after, the employment start date.

Historically, the majority of options granted are performance-based awards granted on an annual basis as part of a budgeting/goal setting process. For executive officers, the compensation committee meets annually to establish compensation levels, including salary, bonus, and options, for the year. This meeting normally occurs in late November or early December prior to the start of the new year - for example in December 2013 for 2014 compensation. It could, however, occur as early as November or as late as January. No goal based options were awarded in 2011, 2012, or 2013. No option grants are planned for 2014. For all other employees, the goal setting process starts in December, but since it involves many more distinct goals and many more individuals, it is a longer process and as a result usually is not ready for submission to the Compensation Committee until January or later. Performance based awards for employees other than executive officers are generally annual awards that must either vest by the end of the calendar year, or they will expire unvested. At the time of the proposed award, we consider whether there are any known upcoming significant events, and have in the past delayed awards as a result of expected positive events.

All option grants for employees are approved by the compensation committee of the Board of Directors. The compensation committee has authorized the executive officers to grant limited amounts of options to new hires without seeking additional compensation committee approval. The compensation committee does not delegate any of its powers for granting options to others, except that it has granted the executive officers the power to grant up to 20,000 options to new hires without the specific approval of the compensation committee.

Other Benefits and Perquisites

Since we have not yet reached profitability on a consistent basis, we take a relatively bare-bones approach to benefits for all employees, including executive officers. There are no benefit plans available to executive officers that are not available to all employees. Executive officers participate in the same benefit plans covering other employees. These benefits include limited health and dental insurance, and group term life insurance. The only retirement plan that we maintain is a 401K plan funded entirely by employee elective deferrals. We have no company funded retirement plans or deferred compensation plans. We also do not provide any of the perquisites common at larger companies. The only perq that we provide is an auto allowance. Our CFO and COO, as well as the CEO of EZDiagnostix, Inc., while he was employed, receive an auto allowance of \$1,000 per month. The amounts paid as auto allowances are considered in setting the overall level of compensation for the executive officer.

Compensation Approval Process

The Compensation Committee of the Board of Directors approves all compensation and awards to executive officers. When we had a CEO, he provided recommendations to the compensation committee for the other executive officers, all of which directly or indirectly reported to him, and regarding most compensation matters, including executive compensation, provides information to the Compensation Committee. However, the Compensation Committee does not delegate any of its functions to others in setting compensation. We did not make formal use of any compensation consultants in determining executive compensation levels for any of the executive officers.

In the past, the compensation committee has considered the results of internal studies of comparable positions at comparable companies. The last such study was done in 2010, prior to increases effective in 2011. Since that time, the compensation committee has not considered market factors in setting salaries, but rather has focused on the Company's ability to pay.

We believe our total compensation package mitigates unreasonable risk-taking by our senior executives. In this regard, we strike a balance between short-term and long-term cash and equity awards. A significant portion of our executives' potential pay is linked to the achievement of financial goals directly aligned to stockholder interests.

Compensation Committee Report

We have reviewed and discussed with management certain Compensation Discussion and Analysis provisions to be included in the Company's 2013 Annual Report on Form 10-K for the fiscal year ended December 31, 2013, filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 ("Form 10-K"). Based on the reviews and discussions referred to above, we recommend to the Board of Directors that the Compensation Discussion and Analysis referred to above be included in the Company's Form 10-K.

Compensation Committee

Ronald J. Berman, Chairman; Paul F. Rocheleau

The following table sets forth the total cash compensation paid or to be paid, as well as certain other compensation paid or accrued, for services rendered during the fiscal years ended December 31, 2013, and 2012 by all individuals that served as Chief Executive Officer during 2013, the Chief Financial Officer, all individuals that were Named Executive Officers as of the end of the previous year, and all executive officers whose total annual salary and bonus exceeded \$100,000 for the fiscal year ended December 31, 2013 (the "Named Executive Officers"):

SUMMARY COMPENSATION TABLE

<u>Name & Principal Position</u>	<u>Year</u>	<u>Salary (1)</u>	<u>Option Awards (2)</u>	<u>All Other Compensation (3)</u>	<u>Total</u>
Douglas P. Baker (4) Chief Financial Officer	2013	\$ 231,250	\$ 0	\$ 12,000	\$ 243,250
	2012	\$ 325,000	\$ 4,666	\$ 12,000	\$ 341,666
Dr. Zvi Yaniv Chief Operating Officer	2013	\$ 325,000	\$ 0	\$ 12,000	\$ 337,000
	2012	\$ 325,000	\$ 4,666	\$ 12,000	\$ 341,666
Dr. Richard Fink Executive Vice President	2013	\$ 175,000	\$ 0	\$ 0	\$ 175,000
	2012	\$ 175,000	\$ 2,800	\$ 0	\$ 177,800
Mr. Alan Jernigan (5) CEO, EZDiagnostix, Inc.	2013	\$ 171,200	\$ 0	\$ 72,200	\$ 243,400
	2012	\$ 158,589	\$ 0	\$ 22,000	\$ 180,589

(1) Salary amounts for all years for all officers reflect amounts earned or accrued during the year and do not reflect cash payments during the year. All four executive officers voluntarily deferred a significant portion of their 2012 and 2013 salaries at the request of the Company to help preserve cash, since the Company did not have sufficient cash flow to pay the amounts due. In 2012, Mr. Baker and Dr. Yaniv each deferred \$71,354, Dr. Fink deferred \$25,833, and Mr. Jernigan deferred \$19,500. The 2012 amount for Mr. Jernigan represents a partial year amount, from the date of his hire in May through the end of the year. In 2013, the deferrals for Mr. Baker, Dr. Yaniv, and Dr. Fink were \$42,934, \$128,819, and \$44,334, respectively.

(2) Amounts included in the option awards column are calculated using fair value accounting. See Note 9 of the consolidated financial statements included in this annual report for the assumptions underlying valuation of equity awards.

(3) The amounts included in the "All Other Compensation" column represent automobile allowances in all years for Mr. Baker and Dr. Yaniv. For Mr. Jernigan, the 2012 amount represents a reimbursement of moving expenses of \$15,000 and auto allowance of \$7,000. In 2013, the amount for Mr. Jernigan represents an auto allowance of \$8,000 and severance of \$64,200.

(4) Mr. Baker was both CEO and CFO during 2012 and through May 2013, at which time he ceased being CEO

(5) Mr. Jernigan terminated employment on August 31, 2013. Salary in 2013 represents a partial year.

GRANTS OF PLAN-BASED AWARDS TABLE

No grants of Plan-Based awards were made in 2013

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END TABLE

The following table sets forth information concerning the outstanding equity awards held by the Named Executive Officers at December 31, 2013.

Name	Option Awards			
	Number of Securities Underlying Unexercised Options - Number Exercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options	Option Exercise Price	Option Expiration Date
Dr. Zvi Yaniv	250,000	—	\$2.17	12/31/2014
	180,000	—	\$1.19	12/03/2017
	150,600	—	\$0.33	03/08/2020
	200,000	—	\$0.33	03/08/2020
	12,500	—	\$0.34	02/02/2022
	12,500	—	\$0.23	04/30/2022
Douglas P. Baker	150,000	—	\$2.17	12/31/2014
	112,500	—	\$1.19	12/03/2017
	117,600	—	\$0.33	03/08/2020
	200,000	—	\$0.33	03/08/2020
	181,000	—	\$0.44	01/28/2021
	12,500	—	\$0.34	02/02/2022
	12,500	—	\$0.23	04/30/2022
Dr. Richard Fink	19,881	—	\$2.50	03/10/2014
	15,906	—	\$2.17	01/01/2015
	3,487	—	\$2.17	02/14/2016
	10,112	—	\$2.25	04/11/2016
	16,713	—	\$1.28	01/29/2017
	45,000	—	\$1.19	12/03/2017
	26,100	—	\$0.33	03/08/2020
	75,000	—	\$0.33	03/08/2020
	1,000	—	\$0.44	01/28/2021
	175,000	—	\$0.44	01/28/2021
	7,500	—	\$0.34	02/02/2022
7,500	—	\$0.23	04/30/2022	

OPTION EXERCISE AND STOCK VESTED TABLE

Named executive officers exercised no options and received no vested stock awards in 2013.

PENSION BENEFITS TABLE

We maintain no retirement plans covering Named Executive Officers or other employees, except for a 401K plan funded solely by elective employee contributions. As such no pension benefits table is included.

NON-QUALIFIED DEFERRED COMPENSATION TABLE

We do not maintain any non-qualified deferred compensation plans covering Named Executive Officers or other employees. As such, no deferred compensation table is included.

POTENTIAL PAYMENTS UPON TERMINATION OR CHANGE IN CONTROL

None of the named executive officers have formal written employment contracts, and therefore, there are no formal payments due on a change in control, unless the change in control results in termination as discussed below. Our 2012 Equity Compensation Plan, which covers all employees, including executive officers, includes a provision which accelerates the vesting of all unvested options upon certain change in control events. There are no unvested awards held by Named Executive Officers as of December 31, 2013.

It is our policy to pay severance upon termination to all employees, including executive officers, when termination is initiated by us and is for other than cause. We have no formal guidelines that cover all situations, but rather each case is handled based on a variety of factors. Factors considered include position, length of service, reason for termination, possible future relationships, as well as other potential factors. Payments may be made in a lump sum or in periodic installments and are usually accompanied by a severance agreement that includes a release, a non-disparagement clause, and possibly a non-compete agreement. In the case of executive officers, the minimum severance due, is one month of severance for each year or partial year of service at the Company, with a minimum of six months. In the case of the existing executive officers, that would equate to eighteen months for Mr. Baker, and nineteen months for Dr. Fink. This would be the minimum amount due upon company initiated termination. Dr. Yaniv has a separate arrangement that calls for nine months of severance. Under the contemplated terms of the proposed merger and as part of broader agreements, Dr. Yaniv and Mr. Baker have agreed to waive these specific severance terms.

DIRECTOR COMPENSATION

Name	Fees Earned	Less Fees Deferred (1)	Fees Paid (1)	Option Awards (2)	All Other Compensation	Total
Dr. Robert Ronstadt	\$ 30,000	\$ 38,140	\$ 13,860	\$ 3,127	\$ 22,000	\$ 55,127
Ronald J. Berman	\$ 25,000	\$ 18,340	\$ 6,660	\$ 3,127	–	\$ 28,127
Paul F. Rocheleau	\$ 20,000	\$ 14,668	\$ 5,332	\$ 3,127	–	\$ 23,127
Tracy K. Bramlett	\$ 6,667	\$ 6,667	–	\$ 2,397	–	\$ 9,064
Howard Westerman	\$ 20,000	\$ 14,668	\$ 5,332	\$ 3,127	–	\$ 23,127
David Li	\$ 20,000	\$ 20,000	–	\$ 3,127	–	\$ 23,127

(1) For Dr. Ronstadt, both fees deferred and fees paid are based on the total of the fees earned and all other compensation columns.

(2) Amounts included in the option awards column are calculated using fair value accounting. See Note 9 of the consolidated financial statements included in this annual report for the assumptions underlying valuation of equity awards.

Under the Board compensation policy adopted in 2011, each outside director receives an annual retainer of \$20,000, paid monthly at a rate of \$1,667 per month. In addition, the Chairman, if an Independent Director, receives an additional annual retainer of \$10,000, paid monthly at a rate of \$833. Committee chairs are paid an additional annual retainer of \$5,000 per year, paid monthly at a rate of \$417. Each Director now also receives an annual grant of 50,000 fully vested options, paid quarterly at a rate of 12,500 options. No fees are paid for board meetings or committee meetings. Each of the Directors deferred a portion of their fees to help the company preserve cash as shown in the table above.

In 2013, Dr. Ronstadt was paid an extra \$22,000 for management functions he volunteered to assume in 2013. This is reflected in the all other compensation column. In February 2014, this extra compensation was renewed for 2014, retroactive to January 1, 2014.

Under the contemplated terms of the proposed merger agreement, four of the independent directors will receive a fee in 2014 for their work on the merger, as well as management functions assumed, if approved by shareholders and if the merger is successfully consummated. If the merger closes, Dr. Ronstadt, Mr. Berman, Mr. Rocheleau, and Mr. Westerman will receive fees, paid in stock.

All of the Directors have retained the right to pursue additional business activities that are not competitive with the business of Applied Nanotech Holdings, and do not adversely affect their performance as Directors. If conflicts of interest arise, the nature of the conflict must be fully disclosed to the Board of Directors, and the person who is subject to the conflict must abstain from participating in any decision that may impact on his conflict of interest. Except for this disclosure and abstention policy, the Directors will not be in breach of any fiduciary duties owed to Applied Nanotech Holdings or the shareholders by virtue of their participation in such additional business activities.

Director Ownership Requirements

We also have a policy related to stock ownership requirements that covers all Directors - both outside Directors and employee Directors. All Directors are required to own a minimum of 20,000 shares of Applied Nanotech Holdings, Inc. common stock. There is no time limit in which a new director must meet those requirements; however, until a Director owns a minimum of 20,000 shares, the Director is not allowed to sell any shares, including shares related to option exercises. Furthermore, if a Director owns in excess of 20,000 shares, that Director is not allowed to sell shares, whether owned or received as a result of the exercise of options, if at the completion of the transaction, it will result in an ownership position of less than 20,000 shares. All current Directors currently meet this ownership requirement with the exception of Director Rocheleau.

The Board of Directors has adopted a policy whereby Directors are prohibited from selling shares of the Company's stock, except during two window periods that will occur each year in the last two full calendar weeks in March and the first two calendar weeks in October, or pursuant to a 10b-5(1) plan adopted during those periods. The Board can grant exceptions to this policy in the case of hardship.

Compensation Committee Interlocks and Insider Participation

The Compensation Committee currently consists of Mr. Berman and Mr. Rocheleau. None of them is, or has been, an officer or employee of Applied Nanotech Holdings, Inc. nor do any of them have any relationships requiring disclosure under Item 404 of Regulation S-K. No interlocking relationship existed during the fiscal year ended December 31, 2013, between Applied Nanotech Holdings' Board of Directors, or Compensation Committee, and the board of directors or compensation committee of any other company.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

CERTAIN BENEFICIAL OWNERS

No persons or entities are known to be the beneficial owner of 5% or more of the outstanding voting stock of the common stock of Applied Nanotech Holdings, Inc. stock as of February 20, 2014. This information is based on public filings as of December 31, 2013. For the purposes of this Annual Report on Form 10-K, beneficial ownership of securities is defined in accordance with the rules of the SEC to mean generally the power to vote or dispose of securities, regardless of any economic interest therein.

SECURITY OWNERSHIP OF MANAGEMENT

Set forth below is certain information with respect to beneficial ownership of Applied Nanotech Holdings' common stock as of February 20, 2014, by each Director, each Named Executive Officer, and by the directors and executive officers as a group. Unless otherwise indicated, each person or member of the group listed has sole voting and investment power with respect to the shares of common stock listed.

Name	Options Included in Beneficial Ownership (1)	Shares Related to Convertible Note Payable (2)	Common Shares Owned	Common Stock Beneficial Ownership	Percentage of Class
Douglas P. Baker	786,100	528,000	100,000	1,414,100	*
Dr. Zvi Yaniv	805,600	343,200	160,000	1,308,800	*
Dr. Richard Fink	403,199	158,400	-	561,599	*
Ronald J. Berman	312,965	-	197,719	510,684	*
Howard Westerman	202,500	-	226,707	429,207	*
Dr. Robert Ronstadt	372,500	-	92,773	465,273	*
David Li (3)	123,750	-	6,578,948	6,702,698	4.18
Paul F. Rocheleau	212,500	-	1,667	214,167	*
All Executive Officers and Directors as a group (8 persons)	3,219,114	1,029,600	7,357,814	11,606,528	7.35%

* Less than 1%

- (1) This column lists shares that are subject to options exercisable within sixty (60) days of February 20, 2014, and are included in common stock beneficial ownership pursuant to Rule 13d-3(d)(1) of the Exchange Act.
- (2) This column lists shares that are obtainable as result of conversion of convertible notes payable at February 20, 2014.
- (3) Stock ownership is as a result of attribution from Sichuan Anxian Yinhee Chemical and Construction Company, of which Mr. Li is a Director.

Item 13. *Certain Relationships and Related Transactions, and Director Independence*

The Company determines Director Independence based on the rules as set forth by the NASDAQ. For 2013, Directors Ronstadt, Berman, Li, Rocheleau, and Westerman all qualified as independent. Former Director Bramlett also qualified as independent while he was a Director. If the proposed merger is completed under the terms contemplated, Director Ronstadt, and possibly Director Berman, will no longer qualify as Independent Directors under NASDAQ rules. Directors Berman, Rocheleau, and Westerman will no longer qualify as independent for audit committee purposes, but may still qualify as independent for other purposes.

It is our written policy that all material related party transactions be approved by the Board of Directors, with any member of the Board affected by the related party transaction abstaining from the vote.

In 2013, Chairman Ronstadt was paid a fee of \$22,000 for management functions that he volunteered to assume.

Item 14. *Principal Accountant Fees and Services*

Audit Fees

The aggregate fees billed to the Company by Padgett, Stratemann & Co., LLP (“Padgett”) for the audit of Applied Nanotech Holdings’ (“APNT”) annual financial statements and for the review of the financial statements included in its quarterly reports on Form 10-Q for the Fiscal Years ended December 31, 2013, 2012, and 2011 were \$75,600, \$69,400, and \$66,670, respectively.

Audit-Related Fees

APNT did not incur or pay any fees to Padgett and Padgett, did not provide any services related to audit-related fees in the last two fiscal years.

Tax Fees

There were no fees billed to APNT by Padgett or for services rendered to APNT during the last two fiscal years for tax compliance, tax advice, or tax planning.

All Other Fees

There were no fees billed to APNT by Padgett for services rendered to APNT during the last two fiscal years, other than the services described above under “Audit Fees.”

It is the audit committee’s policy to pre-approve all services provided by the Company’s auditors. All services provided by Padgett in 2013, 2012, and 2011 were pre-approved by the audit committee.

As of the date of this filing, APNT’s current policy is to not engage Padgett to provide, among other things, bookkeeping services, appraisal or valuation services, or internal audit services. The policy provides that APNT may engage Padgett to provide audit, tax, and other assurance services, such as review of SEC reports or filings.

The Audit Committee considered and determined that the provision of the services other than the services described under “Audit Fees” is compatible with maintaining the independence of the independent auditors.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) The following documents are filed as part of this Annual Report on Form 10-K:

(1) *All Financial Statements*

The response to this portion of Item 15 is set forth in Item 8 of Part II hereof.

(2) *Financial Statement Schedules*

Schedules for which provision is made in the applicable accounting regulations of the Securities and Exchange Commission are not required under the related instructions or are inapplicable, and therefore have been omitted.

(3) *Exhibits*

See accompanying Index to Exhibits on page 63 for a descriptive response to this item. The Company will furnish to any shareholder, upon written request, any exhibit listed in the accompanying Index to Exhibits upon payment by such shareholder of the Company's reasonable expenses in furnishing any such exhibit.

(b) Reference is made to Item 15(a) (3) above.

(c) Reference is made to Item 15(a) (2) above.

SIGNATURES

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

APPLIED NANOTECH HOLDINGS, INC.

By: /s/ Dr. Zvi Yaniv
Principal Executive Officer

February 25, 2014

/s/ Douglas P. Baker
Chief Financial Officer

February 25, 2014

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

<u>Signature</u>	<u>Title</u>	<u>Date</u>
/s/ Dr. Zvi Yaniv Dr. Zvi Yaniv	Chief Operating Officer (Principal Executive Officer, and Director)	February 25, 2014
/s/ Douglas P. Baker Douglas P. Baker	Chief Financial Officer (Principal Financial Officer, Principal Accounting Officer, and Director)	February 25, 2014
Dr. Robert Ronstadt* David Li* Ronald J. Berman* Howard Westerman* Paul F. Rocheleau*	Directors	February 25 2014

*By: /s/ Douglas P. Baker
(Douglas P. Baker,
Attorney-in-Fact)

INDEX TO EXHIBITS

The exhibits indicated by an asterisk (*) have been previously filed with the Securities and Exchange Commission and are incorporated herein by reference.

EXHIBIT NUMBER	DESCRIPTION OF EXHIBIT
3(i).1*	Restated Articles of Incorporation of Company, as filed with the Secretary of State for the State of Texas. (Exhibit 3(i).1 to the Company's Current Report on Form 8-K dated as of December 12, 2007).
3(i).2*	Certificate of Amendment to the Restated Articles of Incorporation, as filed with the Secretary of State for the State of Texas (Exhibit 3(i).2 to the Company's Current Report on Form 10-K for the fiscal year ended December 31, 2010).
3(ii).1*	Amended and Restated Bylaws of the Company. (Exhibit 3(ii).1 to the Company's Current Report on Form 8-K dated as of December 12, 2007).
4.1 *	Form of Certificate for shares of the Company's common stock (Exhibit 4.1 to the Company's Registration Statement on Form SB-2[No.33-51446-FW] dated January 7, 1993).
4.2*	Amended and Restated Rights Agreement dated as of November 16, 2000, between the Company and American Securities Transfer, Incorporated, as Rights Agent, which includes as Exhibit A the form of Statement of Resolution establishing and designating series of preferred stock as "Series H Junior Participating Preferred Stock" and fixing and determining the relative rights and preferences thereof, as Exhibit B the form of Rights Certificate, and as Exhibit C the Summary of Rights to Purchase Preferred Shares. (Exhibit 4.1 to the Company's Current Report on Form 8-K dated as of November 16, 2000).
4.3*	Form of Term sheet for Convertible Notes Payable (Exhibit 99.1 to the Company's Current Report on Form 8-K dated as of February 19, 2010)
4.4*	Form of Convertible Note Payable (Exhibit 4.4 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2009).
4.5*	Convertible Promissory Note between the Company and Tonaquint Inc. (Exhibit 4.5 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2012).
4.6*	Securities Purchase Agreement between the Company and Tonaquint, Inc. (Exhibit 4.6 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2012).
10.1*	Amended and Restated 2002 Equity Compensation Plan. (Exhibit 99.1 to the Company's Current Report on Form 8-K dated as of December 12, 2007).
10.2*	Applied Nanotech Holdings, Inc. 2012 Equity Compensation Plan. (Exhibit 99.1 to the Company's Current Report on Form 8-K dated as of April 27, 2012).
10.3*	Applied Nanotech Holdings, Inc. Audit Committee Charter (Exhibit 10.23 to the Company's Annual Report on Form 10-KSB for the fiscal year ended December 31, 2002)
10.4*	Applied Nanotech Holdings, Inc. Compensation Committee Charter (Exhibit 10.18 to the Company's Current Report on Form 10-K for the fiscal year ended December 31, 2005).
10.5*	Applied Nanotech Holdings, Inc. Nominating Committee Charter (Exhibit 10.19 to the Company's Current Report on Form 10-K for the fiscal year ended December 31, 2005).
14 *	Applied Nanotech Holdings, Inc. Code of Ethics (Exhibit 14 to the Company's Annual Report on Form 10-KSB for the fiscal year ended December 31, 2004)
11	Computation of Income (Loss) per Common Share
21	Subsidiaries of the Company
24	Powers of Attorney
31.1	Rule 13a-14(a)/15d-14(a) Certificate of Dr. Zvi Yaniv, Chief Operating Officer
31.2	Rule 13a-14(a)/15d-14(a) Certificate of Douglas P. Baker, Chief Financial Officer
32.1	Section 1350 Certificate of Dr. Zvi Yaniv, Chief Operating Officer
32.2	Section 1350 Certificate of Douglas P. Baker, Chief Financial Officer

APPLIED NANOTECH HOLDINGS, INC.

COMPUTATION OF (LOSS) PER COMMON SHARE

	Three months ended December 31,			Year ended December 31,		
	2013	2012	2011	2013	2012	2011
<u>Basic Earnings Per Share</u>						
Net income (loss) applicable to common shareholders	\$ (725,380)	\$ (725,337)	\$ (1,461,266)	\$ (3,140,888)	\$ (5,129,150)	\$ (2,570,248)
Weighted average number of common shares	141,171,438	119,657,739	118,915,698	131,744,328	119,311,519	116,851,588
Net income (loss) per per share	\$ (0.01)	\$ (0.01)	\$ (0.01)	\$ (0.02)	\$ (0.04)	\$ (0.02)
<u>Fully Diluted Earnings Per Share (1)</u>						

- (1) No computation of diluted loss per common share is included for the any periods with losses because such computation results in an antidilutive loss per common share.

Subsidiaries of the Company

<u>Subsidiary</u>	<u>State of Incorporation</u>	<u>Doing Business under the Following Names</u>
Applied Nanotech, Inc.	Delaware	Applied Nanotech, Inc.
EZDiagnostix, Inc.	Texas	EZDiagnostix, Inc.

APPLIED NANOTECH HOLDINGS, INC.
POWER OF ATTORNEY

APPLIED NANOTECH HOLDINGS, INC. ANNUAL REPORT ON FORM 10-K

The undersigned, in his capacity as a director of APPLIED NANOTECH HOLDINGS, INC. (the "Company"), after reviewing the Company's Form 10-K, does hereby appoint Douglas P. Baker, his true and lawful attorney to execute in his name, place and stead, in his capacity as a Director of said Company, the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2013, and all instruments necessary or incidental in connection therewith, including all amendments, and to file the same with the Securities and Exchange Commission. Said attorney shall have the full power and authority to do and perform, in the name and on behalf of the undersigned, in any and all capacities, every act whatsoever requisite or necessary to be done in the premises, as fully and to all intents and purposes as the undersigned might or could do in person, the undersigned hereby ratifying and approving the acts of said attorney.

IN TESTIMONY WHEREOF, the undersigned has executed this instrument this 25th day of February, 2014.

/s/ Zvi Yaniv
Dr. Zvi Yaniv

APPLIED NANOTECH HOLDINGS, INC.
POWER OF ATTORNEY

APPLIED NANOTECH HOLDINGS, INC. ANNUAL REPORT ON FORM 10-K

The undersigned, in his capacity as a director of APPLIED NANOTECH HOLDINGS, INC. (the "Company"), after reviewing the Company's Form 10-K, does hereby appoint Douglas P. Baker, his true and lawful attorney to execute in his name, place and stead, in his capacity as a Director of said Company, the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2013, and all instruments necessary or incidental in connection therewith, including all amendments, and to file the same with the Securities and Exchange Commission. Said attorney shall have the full power and authority to do and perform, in the name and on behalf of the undersigned, in any and all capacities, every act whatsoever requisite or necessary to be done in the premises, as fully and to all intents and purposes as the undersigned might or could do in person, the undersigned hereby ratifying and approving the acts of said attorney.

IN TESTIMONY WHEREOF, the undersigned has executed this instrument this 25th day of February, 2014.

/s/ Robert Ronstadt
Dr. Robert Ronstadt

APPLIED NANOTECH HOLDINGS, INC.
POWER OF ATTORNEY

APPLIED NANOTECH HOLDINGS, INC. ANNUAL REPORT ON FORM 10-K

The undersigned, in his capacity as a director of APPLIED NANOTECH HOLDINGS, INC. (the "Company"), after reviewing the Company's Form 10-K, does hereby appoint Douglas P. Baker, his true and lawful attorney to execute in his name, place and stead, in his capacity as a Director of said Company, the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2013, and all instruments necessary or incidental in connection therewith, including all amendments, and to file the same with the Securities and Exchange Commission. Said attorney shall have the full power and authority to do and perform, in the name and on behalf of the undersigned, in any and all capacities, every act whatsoever requisite or necessary to be done in the premises, as fully and to all intents and purposes as the undersigned might or could do in person, the undersigned hereby ratifying and approving the acts of said attorney.

IN TESTIMONY WHEREOF, the undersigned has executed this instrument this 25th day of February, 2014.

/s/ Howard G. Westerman, Jr.
Howard G. Westerman, Jr.

APPLIED NANOTECH HOLDINGS, INC. ANNUAL REPORT ON FORM 10-K

The undersigned, in his capacity as a director of APPLIED NANOTECH HOLDINGS, INC. (the "Company"), after reviewing the Company's Form 10-K, does hereby appoint Douglas P. Baker, his true and lawful attorney to execute in his name, place and stead, in his capacity as a Director of said Company, the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2013, and all instruments necessary or incidental in connection therewith, including all amendments, and to file the same with the Securities and Exchange Commission. Said attorney shall have the full power and authority to do and perform, in the name and on behalf of the undersigned, in any and all capacities, every act whatsoever requisite or necessary to be done in the premises, as fully and to all intents and purposes as the undersigned might or could do in person, the undersigned hereby ratifying and approving the acts of said attorney.

IN TESTIMONY WHEREOF, the undersigned has executed this instrument this 25th day of February, 2014.

/s/ Paul F. Rocheleau
Paul F. Rocheleau

APPLIED NANOTECH HOLDINGS, INC. ANNUAL REPORT ON FORM 10-K

The undersigned, in his capacity as a director of APPLIED NANOTECH HOLDINGS, INC. (the "Company"), after reviewing the Company's Form 10-K, does hereby appoint Douglas P. Baker, his true and lawful attorney to execute in his name, place and stead, in his capacity as a Director of said Company, the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2013, and all instruments necessary or incidental in connection therewith, including all amendments, and to file the same with the Securities and Exchange Commission. Said attorney shall have the full power and authority to do and perform, in the name and on behalf of the undersigned, in any and all capacities, every act whatsoever requisite or necessary to be done in the premises, as fully and to all intents and purposes as the undersigned might or could do in person, the undersigned hereby ratifying and approving the acts of said attorney.

IN TESTIMONY WHEREOF, the undersigned has executed this instrument this 25th day of February, 2014.

/s/ Ronald J. Berman

Ronald J. Berman

APPLIED NANOTECH HOLDINGS, INC. ANNUAL REPORT ON FORM 10-K

The undersigned, in his capacity as a director of APPLIED NANOTECH HOLDINGS, INC. (the "Company"), after reviewing the Company's Form 10-K, does hereby appoint Douglas P. Baker, his true and lawful attorney to execute in his name, place and stead, in his capacity as a Director of said Company, the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2013, and all instruments necessary or incidental in connection therewith, including all amendments, and to file the same with the Securities and Exchange Commission. Said attorney shall have the full power and authority to do and perform, in the name and on behalf of the undersigned, in any and all capacities, every act whatsoever requisite or necessary to be done in the premises, as fully and to all intents and purposes as the undersigned might or could do in person, the undersigned hereby ratifying and approving the acts of said attorney.

IN TESTIMONY WHEREOF, the undersigned has executed this instrument this 25th day of February, 2014.

/s/ David Li
David Li

Rule 13a-14(a)/15d-14(a) Certification of Principal Executive Officer

I, Dr. Zvi Yaniv, certify that:

1. I have reviewed this annual report on Form 10-K for the year ended December 31, 2013 of Applied Nanotech Holdings, Inc. (“APNT”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present, in all material respects, the financial condition, results of operations and cash flows of APNT as of, and for, the periods presented in this report.
4. APNT’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in the Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for APNT and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to APNT, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principals;
 - (c) Evaluated the effectiveness of APNT’s disclosure control’s and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in APNT’s internal control over financial reporting that occurred during APNT’s most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, APNT’s internal control over financial reporting; and
5. APNT’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to APNT’s auditors and the audit committee of APNT’s board of directors:
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect APNT’s ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in APNT’s internal control over financial reporting.

Date: February 25, 2014

/s/ Dr. Zvi Yaniv
Dr. Zvi Yaniv
Chief Operating Officer

Rule 13a-14(a)/15d-14(a) Certification of Principal Financial Officer

I, Douglas P. Baker, certify that:

1. I have reviewed this annual report on Form 10-K for the year ended December 31, 2013 of Applied Nanotech Holdings, Inc. ("APNT");
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present, in all material respects, the financial condition, results of operations and cash flows of APNT as of, and for, the periods presented in this report.
4. APNT's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in the Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for APNT and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to APNT, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principals;
 - (c) Evaluated the effectiveness of APNT's disclosure control's and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in APNT's internal control over financial reporting that occurred during APNT's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, APNT's internal control over financial reporting; and
5. APNT's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to APNT's auditors and the audit committee of APNT's board of directors:
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect APNT's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in APNT's internal control over financial reporting.

Date: February 25, 2014

/s/ Douglas P. Baker
Douglas P. Baker
Chief Financial Officer

Section 1350 Certification

In connection with the annual report of Applied Nanotech Holdings, Inc. (the “Company”) on Form 10-K for the year ended December 31, 2013, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Dr. Zvi Yaniv, the Principal Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13 (a) or 15 (d) of the Securities Exchange Act of 1934; and
2. The information contained in this Report fairly presents, in all material respects, the financial conditions and results of operations of the Company.

Date: February 25, 2014

/s/ Dr. Zvi Yaniv
Dr. Zvi Yaniv
Chief Operating Officer

Section 1350 Certification

In connection with the annual report of Applied Nanotech Holdings, Inc. (the “Company”) on Form 10-K for the year ended December 31, 2013, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Douglas P. Baker, the Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13 (a) or 15 (d) of the Securities Exchange Act of 1934; and
2. The information contained in this Report fairly presents, in all material respects, the financial conditions and results of operations of the Company.

Date: February 25, 2014

/s/ Douglas P. Baker
Douglas P. Baker
Chief Financial Officer