



“Miniaturization pioneers dream of a hand-held device to provide instant diagnoses of any disease imaginable.”

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EXECUTIVE SUMMARY

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A New Day is Dawning

Beacon Biotechnology is moving ever closer to realizing this dream through its BrightSPOT™ detection platform and luciferase based diagnostic tests. By combining cutting-edge hardware and novel biology, Beacon's BrightSPOT System is the right technology at the right time.

Without using super-cooled cameras, lasers or optics, Beacon harnesses the molecules that illuminate the deep ocean to develop extraordinarily sensitive diagnostics capable of performing over a hundred tests on a single drop of blood. The BrightSPOT Reader, developed for Beacon Biotechnology by one of the world's most renowned satellite imaging engineers, is state-of-the-art, but inexpensive enough to throw away. Now, instead of sending a patient's sample off to a lab and waiting days for results, the BrightSPOT System can give the doctor answers in minutes right in the office, allowing for an immediate discussion with the patient and more importantly, immediate care.

Not only will the BrightSPOT System dramatically impact existing billion-dollar markets by speeding up diagnosis and treatment and thereby reducing healthcare costs, it will also address new markets in home diagnostics, point-of-care diagnostics, pharmaceutical research, public health, environmental testing and bioterrorism detection that are currently limited due to the shortcomings of existing technologies.

Imagine how Beacon's BrightSPOT can quickly and cost-effectively —

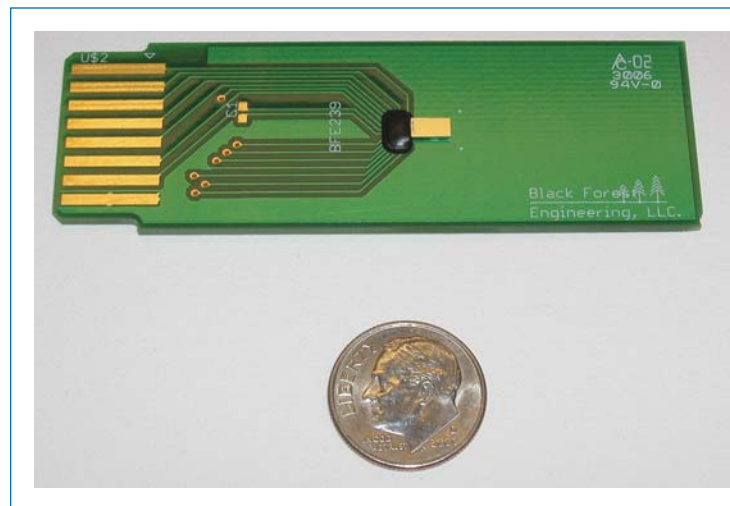
- Diagnose severe infectious diseases like SARS, Meningitis or Hepatitis
- Perform subspecies identification like Methicillin-resistant Staphylococcus aureus (MRSA) or Influenza A (H5N1) aka "Bird Flu"
- Uncover bioterrorism agents like Anthrax and Tularemia

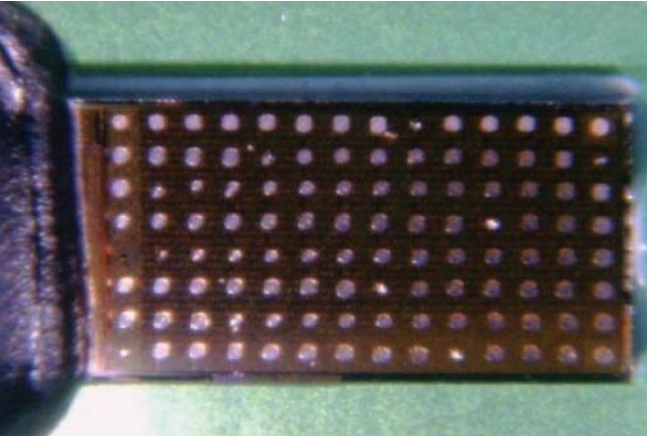
The applications for the BrightSPOT Reader are seemingly endless and the benefits are priceless.

Simple, Powerful

The BrightSPOT™ working prototype (right and close-up of spotted chip, below right) with 112 detection elements is spotted with a different test on each element. It provides simultaneous testing of multiple targets on a single sample.

The BrightSPOT System will detect pathogens and bioterrorism agents in the environment in near real time and under field conditions, diagnose patients in doctors' offices, hospitals, and in-store clinics, and provide inexpensive high-throughput screening and research tools.





The BrightSPOT System is designed to be used once, then discarded. It will include all required materials in a container about the size of a USB memory stick or traditional pack of gum. The disposable will cost approximately \$15 each at an annual volume of 1 MM units at commercialization.

Anywhere Testing

The BrightSPOT system does not require large instrument hardware like its competitors. A small PDA-like Data Communicator is used to record and transmit results to the medical record. A conceptual design of the BrightSPOT Reader and Data Communicator is displayed to the right.

The BrightSPOT system working model has been tested using HIV models and has proven to be at least as good and potentially better than the method currently in use at the National Institutes of Health (NIH). In those tests, we were successful in:

- simultaneous detection of multiple antibodies to HIV from an AIDS patient (anti-p24 and anti-p51)
- in human plasma and serum samples
- at a sensitivity level equal or greater than NIH's detection limits (1:80,000 dilution)



Business Model

Beacon Biotechnology has received public recognition of its unique approach, winning the DaVinci Institute's 2008 Inventor of the Year award in November 2008. Beacon generates high-value intellectual property. The core business remains focused on working with large life science and diagnostic companies to develop products for specific classes of business. For those businesses, we will license out technology to these larger, more established companies to support FDA clinical trials, to manufacture and to manage distribution and sales through their existing sales channels.

We are currently in discussion with S&P 500 companies that have interest in our technology. Two are life-science focused companies and one is an In-vitro Diagnostic company. One of the three has provided their proprietary tests to us to apply to the BrightSPOT system in a collaboration to investigate whether the two will work well together. Preliminary data has been positive. The outcome of this collaboration could be one such licensing arrangement.

A successful company employing a similar business model is Luminex (www.luminexcorp.com, NSADAQ LMNX), with a market value of \$855 MM (12/2/08). Luminex began ten years ago with IP surrounding multiplexed bead testing, which they have outlicensed to others to bring to market. We are on a similar path. However unlike Luminex, Beacon's BrightSPOT System is an inexpensive solution and is not bound to the large, expensive equipment associated with the centralized laboratory business model. As such, Beacon's technology is a leap beyond that can provide the impetus to change the delivery of healthcare. Despite the limitations of the technology, Luminex has successfully licensed it to more than two dozen life-science, biotechnology and IVD companies.

Competitors

Competitors can be divided into two major categories:

- 1) Those marketing lateral flow devices serving the Point of Care market, such as urine dip-stick pregnancy tests, that have been available for many years. These type of devices are inexpensive and give fast results; however, they have limited uses because only one or two tests can be performed and the results are qualitative. In a doctor's office, If the test is negative, indicating the physician's 'first guess' was not correct, they must continue to investigate and perform additional testing.
- 2) The "centralized lab" model requires a device that uses one or more complex technologies such as lasers, optics, super-cooled CCD cameras and robotics. These devices while being quantitative and able to perform multiple tests are also very expensive and requires a trained technician for operation. And, most of these devices are large pieces of equipment not suitable for in-field use.

The BrightSPOT system combines the advantages of both of the above device types by creating an inexpensive, quantitative, hand-held device capable of performing multiple tests with results in near real-time.

Team

Beacon Biotechnology, LLC (founded September, 2006 USA), was formed to consolidate and integrate complementary detection and biological technologies for DNA and protein microarrays. The management of Beacon Biotechnology is a five member board representing the top managers of three successful and established companies. Each of the parent companies brings expertise necessary for the successful development of the BrightSPOT readers. BP Proteomics Inc., formed by the founders of a successful molecular tool company, Avidity, LLC, is responsible for the development of biological test technologies (NAPA, Reversed-Phase, and Universal Detection) for use on the readers. Black Forest Engineering LLC is responsible for prototype design, interface and software analysis of the BrightSPOT reader. Prolume Ltd. developed the concept for the reader and continues to develop bioluminescent tools to further enhance the reader.

Fred Mitchell, CEO

Fred has spent his career in medical devices and healthcare. He managed a hospital laboratory and a \$20 MM professional diabetes product business at Bayer Diagnostics, one of the world's largest In-vitro Diagnostics companies purchased by Siemens Healthcare in 2007. After his 14 years at Bayer, Fred was Director of Business Development at a Boulder medical device product development firm. He later managed the instrumentation and vital signs monitoring products of the third largest veterinary provider and managed the enteric pathogen detection business for the world's largest rapid diagnostics company, Inverness Medical. Fred brings with him significant experience and knowledge in the business of human and veterinary medical devices.

Millard Cull, BA, MBA – Founding Board Member

Millard Cull, the co-founder and Chief Technology Officer of Beacon Biotechnology LLC, has over 15 years of experience in the biotechnology industry. In addition to his role in Beacon Biotechnology, Mr. Cull is also a manager and CEO of Avidity, LLC. Mr. Cull founded Avidity in 1996. Mr. Cull has a BA degree in Molecular, Cellular and Developmental Biology from University of Colorado, Boulder, and a Masters of Business Administration (MBA) in Finance from the University of Denver. Mr. Cull holds several patents in the field of Directed Molecular Evolution and a patent for the Replicative DNA Polymerase from *Thermus Thermophilus*. Mr. Cull co-authored a paper describing the first use of intercalating dyes in a DNA polymerase assay that served as a forerunner of quantitative PCR (qPCR) and was the lead inventor on several recently submitted patent applications including the Chemiluminescent Nucleic Acid Proximity Assay (NAPA™).

Larry Lansing, BS – Founding Board Member

Larry Lansing is the co-founder and Chief Financial Officer of Beacon Biotechnology, LLC. Together with Mr. Cull, Mr. Lansing also founded Avidity, LLC in 1996 and serves as a Manager and Chief Financial Officer for Avidity. He has over 25 years of accounting experience, initially as a Certified Public Accountant (CPA) with a focus on taxation and business consulting. Over the past ten years he has been instrumental in negotiating license agreements for use of Avidity's patented AviTag™ technology with nine out of ten of the world's largest pharmaceutical companies.

Ronald Gill, PhD

Ron Gill is Chief Scientific Officer of Beacon Biotechnology. Dr. Gill has more than 25 years of biomedical research experience in both biotechnology and academic environments. Dr. Gill is an Associate Professor in the Department of Microbiology at the University of Colorado Health Sciences and a Member and Senior Scientist with Avidity LLC.

Bruce Bryan, MD – Founding Board Member

Dr. Bryan is a visionary in the bioluminescence field. Dr. Bryan was trained as a surgeon, but after retiring from practice, followed his passion for the ocean and its luminescent inhabitants. Dr. Bryan established Prolume in 1995 to commercialize his bioluminescence portfolio for medical, diagnostic, and educational applications. Dr. Bryan cloned several light emitting genes, has an extensive deep sea animal collection, conducts research, and manages a large patent portfolio.

Stephen Gaalema, PhD – Founding Board Member

Dr. Gaalema is founder of Black Forest Engineering and is the designer of the BrightSPOT reader. Dr. Gaalema holds 21 patents and is on the cutting-edge in the field of integrated circuits for visible, IR, and x-ray image sensing and display as well as associated data acquisition and signal processing. Dr. Gaalema currently has imaging systems he designed that are circling the Earth and Mars.

Timeline

Beacon is on a 24 month timeline to develop a fully-functioning pre-production prototype device capable of immediate commercialization. We are currently developing a device for detection of Infectious Disease. Funding for this development is provided through a \$3 MM private placement memorandum (PPM) which has raised \$750k through 2008. Additionally, Small Business Innovative Research (SBIR) grants have been and will continue to be submitted to US governmental agencies. Continued generation of positive data on the BrightSPOT reader will strengthen our ability to obtain SBIR grants. Also, by having a pre-production prototype, we will be able to establish licensing agreements with large life-science and diagnostic companies. The PPM may be closed prior to full funding of the PPM if we are successful in obtaining a substantial licensing revenues before the 24 month end date.

Summary

Beacon Biotechnology is poised to change the way healthcare is delivered, in the clinic, ambulance, or in rural settings. Our goals are to reduce healthcare costs, improve treatment decision-making with more data, and eliminate the time waiting for test results so that important treatment decisions can be made anywhere and in real-time, thereby improving the quality of life.

Join us in our work. Contact us now for further information on how you can become part of making healthcare real-time.