BSD MEDICAL CORP
Form 10-K
November 06, 2009

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

FORM 10-K
(Mark One)
[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the Fiscal Year Ended August 31, 2009

[ ] TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the Transition Period From _____ to _____

Commission File Number: 001-32526

BSD MEDICAL CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	75-1590407
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
2188 West 2200 South, Salt Lake City, Utah	84119
(Address of principal executive office)	(Zip Code)

Registrant's telephone number, including area code: (801) 972-5555

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

Title of Each Class	Name of Each Exchange on which Registered
Common Stock, Par Value $0.001	The NASDAQ Stock Market LLC

Securities registered pursuant to Section 12(g) of the 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[X]

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[X]

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 preceding 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 [X] 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 (Section 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 pursuant to Item 405 of Regulation S-K is not contained herein, 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. See definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer [ ] Accelerated filer [ ]
Non-accelerated filer [ ] (Do not check if a smaller reporting company) Smaller reporting company [X]

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act.) Yes [ ] No[X]

The aggregate market value of the common stock held by non-affiliates of the registrant as of February 29, 2009 was approximately $37,128,000.

As of November 6, 2009, the registrant had 22,014,970 shares of its common stock, par value $.001, outstanding.

Documents Incorporated by Reference: Portions of the definitive Proxy Statement to be delivered to shareholders in connection with the 2010 Annual Meeting of Shareholders, which is expected to be held February 3, 2010, are incorporated by reference into Part III hereof.

BSD MEDICAL CORPORATION
FORM 10-K

For the Year Ended August 31, 2009

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PART I

ITEM 1. BUSINESS

Overview

BSD Medical Corporation (the "Company") was originally incorporated under the laws of the State of Utah on March 17, 1978. On July 3, 1986, the Company was reincorporated in the State of Delaware.

We develop, manufacture, market and service medical systems that deliver precision-focused radio frequency (RF) or microwave energy into diseased sites of the body, heating them to specified temperatures as required by a variety of medical therapies. Our business objectives are to commercialize our products developed for the treatment of cancer and to further expand our systems to treat other diseases and medical conditions. Our product line for cancer therapy has been created to offer hospitals and clinics a complete solution for thermal treatment of cancer as provided through microwave/RF systems.

While our primary developments to date have been cancer treatment systems, we also pioneered the use of microwave thermal therapy for the treatment of symptoms associated with enlarged prostate, and we are responsible for technology that has contributed to a new medical industry addressing the needs of men's health. In accordance with our strategic plan, we subsequently sold our interest in TherMatrx, Inc., the company established to commercialize our technology to treat enlarged prostate symptoms, to provide substantial funding that we can utilize for commercializing our systems used in the treatment of cancer and in achieving other business objectives.

In spite of the advances in cancer treatment technology, nearly 40% of cancer patients continue to die from the disease in the United States. Our product line includes systems that have been strategically designed to offer a range of thermal treatment systems for the treatment of cancer, including both hyperthermia and ablation treatment systems. Studies have shown that both hyperthermia and ablation treatments kill cancer but they have different clinical applications.

Our hyperthermia cancer treatment systems are used to treat cancer with heat (hyperthermia) while boosting the effectiveness of radiation through a number of biological mechanisms. Hyperthermia is usually used to increase the effectiveness of other therapies; e.g., radiation therapy and chemotherapy for the treatment of locally advanced cancers. Hyperthermia usually refers to treatments delivered at temperatures of 40-49°C for one hour.

Our microwave ablation system is to be used to ablate (remove or vaporize) soft tissue with heat alone. Thermal ablation usually refers to heat treatments delivered at temperatures above 55°C for short periods of time. Thermal ablation is used to destroy local tumors using a short intense focus of heat on a specific area, which is usually small, similar to surgical removal of the tumor.

Commercialization of our systems that are used to treat cancer is our most immediate business objective. Current and future cancer treatment sites for our systems may include cancers of the prostate, breast, head, neck, bladder, cervix, colon/rectum, ovarian, esophagus, liver, kidney, brain, bone, stomach and lung. Our cancer treatment systems have been used to treat thousands of patients throughout the world and have received many awards, including the Frost & Sullivan "Technology Innovation of the Year Award" for cancer therapy devices awarded for the development of the BSD-2000.

Although we have not entered most of these markets, we also believe that our technology has application for a number of other medical purposes in addition to cancer.

On April 22, 2008 we changed the listing of our stock from the American Stock Exchange (AMEX) to the NASDAQ Stock Market (NASDAQ), and our stock now trades under the NASDAQ symbol “BSDM.”

The Sale of TherMatrx

One of our important contributions to the advancement of medical therapy has been our pioneering work in developing a new treatment for conditions associated with enlargement of the prostate that afflicts most men as they age. As the prostate enlarges it constricts urine flow. The condition is known medically as benign prostatic hyperplasia or BPH. We developed a technology that allows men to be treated for BPH through an outpatient procedure as an alternative to surgery or a lengthy regimen of medication.

We determined early in our planning that we would treat our development of BPH therapy as a spin-off business with the intent of providing funding for our primary business objectives. We established a new company, TherMatrx, Inc., and received capital from investors to conduct clinical trials, and, after obtaining U.S. Food and Drug Administration ("FDA") approval in July 2001, the funding to commercialize the development. We were compensated for providing manufacturing, regulatory and engineering support to assure the success of the new company.

On July 15, 2004, TherMatrx, Inc. was sold to American Medical Systems Holdings, Inc. (AMS). Our part of the total proceeds from this sale was approximately 25%. A portion of the payout from the sale was based on contingency payments. We received approximately $33.7 million from the TherMatrx sale, including an additional $202,223 in April 2007. We are not currently entitled to or expect any further payments or proceeds from the sale of TherMatrx.

Our Contributions to Cancer Therapy

Despite the massive attention given to cancer prevention and treatment, the American Cancer Society estimates that 1,500,000 new cancer cases will be diagnosed and that 562,340 Americans will die from cancer during 2009. In the United States the chance of developing cancer during a person's lifetime is one in two for men and one in three for women. Cancer develops when abnormal cells in a part of the body begin to grow out of control and spread to other parts of the body.

Our cancer treatment systems have been developed to both kill cancer directly with heat and to increase the effectiveness of the primary cancer treatment used in conjunction with the heat therapy. The primary cancer therapies currently used include:

- Radiation therapy, which is treatment with high-energy rays to kill or shrink cancer cells. The radiation may come from outside of the body (external radiation) or from radioactive materials placed directly in a tumor (internal or implant radiation, sometimes called brachytherapy).
- Chemotherapy, which is treatment with drugs to destroy cancer cells.
- Surgery, which is the resection, or removal, of a tumor or organ of the body.

Some cancers, such as certain cancers of the liver, prostate, kidney, bone metastases and lung cancer, are treated using heat alone to deliver thermal ablation. For these treatments we have developed the MicroThermX Microwave Ablation System that is used to ablate soft tissues at high temperatures as a stand-alone therapy. Over 40,000 solid tumor ablation procedures were performed in the U.S. last year and approximately 140,000 procedures were performed worldwide.

The treatment of many cancers is generally prescribed with one or more of the primary cancer therapies noted above. Because cancer remains a leading cause of death, these three cancer therapies are still inadequate, and there is an enormous need for better treatment. We have engineered systems designed to increase the effectiveness of these cancer treatments through the use of precision-focused RF/microwave energy to selectively heat cancer, creating "hyperthermia" in cancerous tumors. Hyperthermia is an emerging cancer therapy that both kills cancer cells directly and has been shown to be a potent additive treatment in making certain of the major existing cancer therapies more effective for some cancers.

Hyperthermia therapy has been shown to substantially improve the results from cancer treatments for a variety of tumors. Completed randomized clinical trials compared the effectiveness of radiation therapy combined with hyperthermia therapy against the results of radiation therapy alone in cancer treatment produced the following results: For melanoma, after two years, local control (local regression or disappearance of the tumor) was 28% for the control group of patients who received radiation therapy alone versus 46% local control for the patients who received both hyperthermia and radiation therapy. For recurrent breast cancer, the complete response rate (complete disappearance of the tumor) increased from 38% for those receiving radiation therapy alone to 60% for those patients who received both hyperthermia and radiation therapy. For glioblastoma (brain cancer), the two-year survival rate for patients who received radiation therapy alone was 15%, compared to 31% survival rate two years after treatment for those who received both hyperthermia and radiation therapy. For advanced cervical cancer, the complete response rate (disappearance of the tumor) rose from 57% for patients who received radiation treatments alone to 83% for patients receiving both hyperthermia and radiation therapy. The cervical cancer data was based on the condition of patients three years after treatment. For high risk soft-tissue sarcomas, patients were 30% more likely to be alive and cancer free almost three years after starting treatment if hyperthermia was added to their chemotherapy treatment. Almost three years after starting treatment, the sarcoma patients treated with hyperthermia and chemotherapy were 42% less likely to experience a recurrence of their cancer at the same site or to die than those who were getting chemotherapy alone.

Cancerous tumors are uncontrolled growths of mutated cells that require more energy to survive than do cells of normal tissue. As cancer cells grow rapidly, they tend to outstrip their blood supply, leaving them oxygen-starved, since there is not enough blood to carry sufficient oxygen to these cells. Oxygen-starved cancer cells are resistant to radiation therapy because the destructive power of radiation therapy depends heavily on tearing apart the oxygen molecules located in cancer cells. When oxygen molecules are torn apart, they form oxygen radicals that can attack cancer cell DNA. Blood depletion also makes cancer resistant to chemotherapy, where blood transport is required to deliver the drug into the tumor. Our hyperthermia therapy systems precisely deliver microwave energy to elevate the temperature of tumors, usually between 40°C and 45°C (104°F to 113°F). The elevated temperatures draw blood to the tumor as the body's natural response to the stimulus of heat. The increased blood supply to the tumor improves delivery of drugs to tumors in chemotherapy. It also delivers more oxygen to the tumor, increasing the effectiveness of radiation therapy.

While sensitizing tumors for more effective treatment from radiation and/or chemotherapy, hyperthermia also destroys cancer cells directly through damage to the plasma membrane, the cytoskeleton and the cell nucleus, and by disrupting the stability of cellular proteins. Tumors with poor blood supply systems lack the natural cooling capacity provided by efficient blood flow in normal tissues, making them selectively susceptible to the destructive effects of hyperthermia therapy.

Hyperthermia has other therapeutic uses. It can be used to shrink tumors prior to surgery, potentially making resection easier or even possible. Research has shown hyperthermia to be an activator for some gene therapies by speeding gene production (heat mediated gene therapy). Hyperthermia may play a role in the development of new anti-tumor vaccines that are based on the production of heat shock proteins. Research has shown hyperthermia to be an angiogenesis inhibitor, which means it helps prevent cancer from inducing growth of new blood vessels to expand

its blood supply. Hyperthermia could also become a follow-up therapy for other angiogenesis inhibitors, used in the final destruction of cancer cells depleted of blood by angiogenesis inhibitor therapy. Hyperthermia has been shown to improve a patient's quality of life. Even in situations where there is no hope for survival, hyperthermia may provide benefits through alleviation of some of the side effects of cancer, including bleeding, pain and infection.

Since the founding of the Company, we have been heavily involved in developing technological advances to expand the use of hyperthermia therapy for the treatment of cancer. Our efforts have included joint work with many notable cancer research centers in the United States and Europe. In past years, funding for our research efforts has been provided by such sources as the National Institutes of Health in the United States and major European government agencies. In recent years, we have focused our efforts in perfecting the technology required to precisely deliver deep, non-invasive hyperthermia therapy for the treatment of pelvic and other deep cancers and to demonstrate effective use of deep hyperthermia through clinical trials. We believe that our BSD-2000 system has emerged from this development effort as the world's most advanced system for hyperthermia therapy.

We have developed various technologies for heating cancerous tumors, depending on their location in the body. Through our developments, cancers such as melanomas or recurrent breast cancer located near the surface of the body can be treated with superficial cancer treatment applicators and systems. Cancers that can be accessed through natural body orifices, or that are accessible through catheters inserted into the tumor as part of invasive radiation techniques (which are used to treat prostate cancer or head and neck cancer) can be treated with small, inserted antennas that we have developed to deliver focused microwave energy into the cancerous tissue. We have also developed systems to non-invasively treat cancers located deep in the body by focusing electromagnetic energy on the cancer through a cylindrical applicator that surrounds the body. This cylindrical applicator contains an array of multiple antennae that focus radio frequency energy, and therefore heat, on the tumor. Temperature levels for treatments are monitored through small temperature sensors. Some of our systems can be interfaced with magnetic resonance imaging, or MRI, so that the treatment in progress can be observed, and temperatures can be monitored through images colorized to depict gradation of temperature levels (thermography).

Our BSD-500 is used to treat cancers located near the surface of the body, or areas that can be accessed using inserted antennae. The BSD-500 comes in several versions, depending on the customer requirements. The BSD-2000 is used to non-invasively treat deep cancers. This system also comes in several versions, including models with three dimensional, or 3D, steering of electromagnetic energy, as well as the ability to be integrated with MRI.

The BSD-500 has received FDA approval. In addition, the system has gone through an extensive revision, and we have obtained FDA approval of two major FDA supplements that were necessary for commercialization.

The BSD-2000 does not currently have FDA approval except as an investigational device. On May 18, 2009, we obtained Humanitarian Use Device (HUD) designation for the BSD-2000 Hyperthermia System for use in conjunction with radiation therapy for the treatment of cervical carcinoma patients who are ineligible for chemotherapy, and we subsequently filed a Humanitarian Device Exemption (HDE) submission with the FDA. Obtaining the HUD designation and approval of the HDE are the two steps required to obtain HDE marketing approval, which requires us to demonstrate the device's safety and probable benefit in treating a disease or condition that affects fewer than 4,000 individuals in the United States per year. The HDE is still under review by the FDA. We have certified the BSD-2000 for the CE Mark required for export into certain European and non-European countries. We sought and obtained regulatory approval for the sale of the BSD-2000 in the People's Republic of China during 2005.

Our MicroThermX-100 thermal ablation system received FDA marketing clearance in September 2008 for ablation of soft tissue, but following field evaluations of the original design, we elected to pursue a more advanced Phase II ablation system before entering the market. The Phase II, or our MicroThermX-180 Microwave Ablation System (the "MTX-180"), will provide a wider range of clinical application, improved ease of use and additional revenue streams. We believe the MTX-180 has the potential to be the market leader in microwave ablation.

Most of our sales of cancer therapy systems over recent past periods have been to cancer research institutions for use in conducting clinical trials with our equipment. As a company, we continue the marketing of our commercial version of the BSD-500 and plan to market the MTX-180 in 2010. We believe obtaining FDA approval for the BSD-2000 would greatly contribute to our sales efforts by providing the additional technology required for the treatment of solid tumors located virtually anywhere in the body.

Our Products and Services

We have developed technology and products for thermal ablation and hyperthermia cancer therapy through multiple techniques, which collectively allow cancer to be treated virtually anywhere in the body:

- Thermal ablation ablates (removes or vaporizes) soft tissues at high temperatures through focused microwave energy.

- Superficial hyperthermia non-invasively treats cancerous tumors located within a few centimeters of the surface of the body, such as melanoma and recurrent breast cancer.

- Internal or interstitial hyperthermia treats tumors in combination with internal radiation therapy by inserting tiny microwave antennae that deliver hyperthermic microwave energy to tumors through the same catheters used to deliver radioactive materials, or "seeds," to tumors for radiation therapy. This technique can be employed in treating prostate cancer, breast cancer, head and neck cancer and a variety of other cancer sites.

- Deep hyperthermia non-invasively treats tumors located deep within the body, including many problematic cancer sites located in the pelvis.

MTX-180. Our MTX-180 has been developed to employ precision-guided microwave energy to ablate soft tissue. The MTX-180 is a compact, mobile system that includes a state-of-the-art computer, a microwave generator, single-patient-use disposable applicators and a proprietary thermistor-based temperature monitoring system. The delivery of microwave energy is controlled by time and power parameters set by the operator utilizing an interactive touch-screen monitor that allows the operator to quickly and easily control the treatment. The MTX-180 provides minimally invasive access to the target tissue and can be used in open surgical as well as in percutaneous ablation procedures, which will allow the MTX-180 to be used by both surgeons and interventional radiologists. The MTX-180 was developed to provide treatments as a stand-alone therapy, rather than only in combination with other therapies.

The MTX-180 represents a major part of our business plan moving forward. It introduces into our product line a disposable applicator used in each treatment, which we believe represents the potential for a significant ongoing revenue stream after the sale of the system. Our sales force is experienced in marketing to interventional radiologists and surgeons, the users of thermal ablation systems. Internationally, we expect sales will be conducted through established and new distributors located primarily in Europe and Asia.

In September 2008, the FDA granted us a 510(k) clearance to market the Phase I MTX-100, which authorizes the commercial sale of the device in the United States. At the same time that we received the 510(k) clearance for the MTX-100 System, we had already started design of a more advanced Phase II ablation system that would provide a wider range of clinical applications and improved ease of use as well as additional revenue streams. Since receipt of FDA clearance to market the MTX-100, we have devoted significant efforts to optimizing the design of the system to improve its ease of use and its medical applications. Following clinical evaluations of Phase I, we decided to postpone market entry until completion of the optimized Phase II MTX-180 design. We believe this will allow us to enter this market with an optimized system that will have a wider range of clinical applications and increased revenue streams.

Additional time will be required to complete the market-ready Phase II design, apply for applicable regulatory approvals, and finalize the manufacturing processes for the MTX-180 and the applicators. Also, final marketing and sales strategies must be completed prior to market introduction. We currently are unable to predict when these efforts will be completed and when revenues from the sale of the MTX-180 and related applicators will begin. We do not believe, however, that these revenues will begin until at least the first or second quarter of calendar year 2010, and we cannot be sure that these revenues will be consistent with our expectations.

BSD-500. Our BSD-500 systems are used to deliver either superficial hyperthermia therapy, which is non-invasive and delivered externally using antennae placed over the tumor, or interstitial hyperthermia therapy, which is delivered using antennae that are inserted into the tumor, or both. These systems include a touch screen display monitor by which the operator controls the hyperthermia treatment, computer equipment and software that controls the delivery of microwave energy to the tumor, and a generator that creates the needed microwave energy for the treatment. Additionally, the systems include a variety of applicator (radiating antennae) configurations, depending on the system. Various configurations of non-invasive applicators (antennae) are used for superficial hyperthermia treatments. For interstitial hyperthermia treatments, the system may include up to 24 small microwave heat-delivering antennae that are inserted into catheters used for internal radiation therapy (called brachytherapy).

Our primary FDA approval (described as a pre-market approval, or PMA, which is the standard FDA approval required to market Class III medical devices in the United States) for the BSD-500 is for the use of hyperthermia and radiation therapy to treat certain tumors using the BSD-500 Hyperthermia System. There are some clinical studies that have been published that show the effectiveness and safety for the use of hyperthermia and certain chemotherapy drugs for the treatment of some cancers. We do not currently have FDA approval for the use of hyperthermia in conjunction with chemotherapy, but physicians are allowed to utilize medical devices that have been approved or cleared by the FDA, including the BSD-500 Hyperthermia System, for off label indications (indications for use that are not included in the FDA approval or clearance).

We have received FDA approval through FDA supplements for implementation of a new operating system and a new power generation system and other commercial upgrades for the BSD-500 configurations. We have also certified the BSD-500 systems for the CE Mark, which is required for export into some European and non-European countries.

BSD-2000. The BSD-2000 family of products includes the BSD-2000, the BSD-2000/3D and the BSD-2000/3D/MR. These systems non-invasively deliver localized therapeutic heating (hyperthermia) to solid tumors by applying radiofrequency (RF) energy to certain cancerous tumors, including those located deep within the body. These systems consist of four major subsystems: an RF power generator delivery subsystem; a proprietary, thermistor-based, thermometry subsystem; a computerized monitoring and control subsystem; and an applicator subsystem that includes an applicator and patient support system; as well as various accessories. The BSD-2000 delivers energy to a patient using a power source and an array of multiple antennae that surround the patient's body. The BSD-2000 systems create a central focusing of energy that can be adjusted to target the 3-dimensional shape, size, and location of the tumor, thus providing dynamic control of the heating delivered to the tumor

region. The basic BSD-2000 has eight microwave antennae enabling this electronic steering of energy within the patient's body. The BSD-2000/3D has 24 microwave antennae enabling additional electronic steering along the long axis of the body. The 3D steering is particularly useful when implemented with a magnetic resonance system that is capable of non-invasive 3D imaging showing the heated regions, thus permitting the 3D steering to more accurately target the energy to the tumor site.

The BSD-2000 system has not yet received PMA from the FDA for commercial marketing in the United States, but the BSD-2000 has obtained an investigational device exemption, or IDE, for placement in the United States for research purposes only. We have also certified the BSD-2000 family for the CE Mark required for export into certain European and non-European countries and have obtained regulatory approval for the sale of the BSD-2000 in the People's Republic of China.

We have been engaged over the past three years in the extensive process of supporting an FDA submission requesting PMA for the BSD-2000 that was filed on March 28, 2006. During the PMA review process, we continued to work closely with the FDA to determine an appropriate pathway to obtain a marketing approval for the BSD-2000 utilizing the clinical data that was available to us to support a marketing approval. During this process, we submitted multiple amendments and held multiple face-to-face meetings with the FDA. As a result of the process, the FDA suggested that the HDE marketing approval process might be the most expeditious pathway for us to obtain a marketing approval. Due to the length of time that the submission had already been under review by the FDA, the significant amount of additional time required to continue to pursue the PMA, and our desire to bring the BSD-2000 to market as quickly as possible, we followed the FDA's suggestion.

On May 18, 2009, the FDA granted HUD designation for our BSD-2000 for use in conjunction with radiation therapy for the treatment of cervical carcinoma patients who are ineligible for chemotherapy. This is the first of the two steps required to obtain HDE marketing approval. Subsequent to the FDA granting the HUD for the BSD-2000, which confirms that the intended use population is fewer than 4,000 patients per year, we filed an HDE submission with the FDA. The FDA generally has 75 days from the date of receipt of the HDE submission to grant or deny an HDE application. This period includes a 30-day filing period during which the FDA determines whether the HDE application is sufficiently complete to permit substantive review. During this review, the FDA may refine the indications for use which received HUD designation to finalize the indications for use for which HDE approval will be granted. This decision will be based on the data that is available to support the device's HDE application. We believe that the data previously submitted to the FDA and reviewed by the agency in our PMA application can be used to support the HDE approval. As of the date of filing this report, the FDA continues its review of our HDE marketing submission for the BSD-2000. Although we remain optimistic that HDE marketing approval will be granted, we are unable to predict when the review process will be completed and its ultimate outcome. If we are unable to receive HDE marketing approval, or if the FDA requires us to undergo extensive testing in order to grant HDE marketing approval, our business could be adversely affected.

The PMA was placed on hold until the HUD designation was granted by the FDA. Once the HUD designation was granted and the HDE was filed, per FDA regulations, we withdrew the PMA submission. We can decide to pursue PMA for the BSD-2000 at a future date.

The HDE approval of the BSD-2000 Hyperthermia System will authorize the commercial sale of the BSD-2000 in the United States. However, there are some differences between the HDE marketing approval and PMA approval, as well as some limitations on the HDE approved devices. The HDE approval demonstrates safety and probable benefit, is intended for use in the treatment of a disease that affects fewer than 4,000 individuals in the United States per year, is only granted when no comparable device has been approved to treat the same disease population, and requires approval from an Institutional Review Board before being used in a facility. In addition, we cannot charge an amount for an HDE approved device that exceeds the costs of research and development, fabrication, and distribution. A device can have both PMA and an HDE approval as long as the approvals are for different indications for use. In addition, a product can have multiple HDE approvals for different applications, and we may decide to pursue additional HDE approvals for the BSD-2000 in the future.

Development of the BSD-2000, the BSD-2000/3D and the BSD-2000/3D/MR has required substantial effort involving the cooperative work of such United States research institutions as Duke University, Northwestern University, University of Southern California, Stanford University, University of Utah and University of Washington St. Louis. Contributing European research institutions include Daniel den Hoed Cancer Center of the Academisch Ziekenhuis (Rotterdam, Netherlands), Haukeland University Hospital (Bergen, Norway), Dusseldorf University Medical School, Tübingen University Medical School, Essen University Hospital, Charité Medical School of Humboldt University (Berlin), Luebeck University Medical School, Munich University Medical School Grosshadern, Interne Klinik Argirov of the Munich Comprehensive Cancer Center, University of Erlangen (all of Germany), University of Verona Medical Center (Italy), Graz University Medical School (Austria) and Kantonsspital Aarau (Switzerland).

BSD-2000/3D. Through research funded by the National Cancer Institute in the United States and supportive efforts by other domestic and international research institutions, we enhanced the BSD-2000 to create the new BSD-2000/3D. The BSD-2000/3D adds three-dimensional steering of deep focused energy, as opposed to the two-dimensional steering of energy available in the BSD-2000, delivering even more precise heating of the tumor. As part of our international collaborative research efforts, sophisticated treatment planning software for the BSD-2000/3D has also been developed.

We have not yet submitted to the FDA a PMA application for the BSD-2000/3D. However, we have obtained the CE Mark necessary to export the BSD-2000/3D to certain European countries and other countries requiring CE Mark certification.

BSD-2000/3D/MR. As a further enhancement of the BSD-2000/3D, we have added to it the option of concurrent magnetic resonance imaging, or MRI, used for monitoring the delivery of deep hyperthermia therapy. Using sophisticated microwave filtering and imaging software, the BSD-2000/3D/MR allows an MRI system to be interfaced with and operate simultaneously with a BSD-2000/3D. The development of MRI treatment monitoring is a significant breakthrough in the development of hyperthermic oncology primarily because it allows non-invasive “on-line” review of hyperthermic treatment progress.

We installed and tested the first BSD-2000/3D/MR system at a leading German oncological research institution, the Clinic of Medical Oncology of the Klinikum Großhadern Medical School of Ludwigs-Maximilians-Universität München, in Munich, Germany. We have since installed BSD-2000/3D/MR systems at multiple other locations.

As is the case for the BSD-2000/3D, we have not yet submitted to the FDA a PMA application for the BSD-2000/3D/MR. We can, however, market the BSD-2000/3D/MR in Europe as we have CE Mark approval for the BSD-2000/3D/MR, provided we interface the system with an MRI system that also is approved in Europe.

Marketing and Distribution

Our target customers include clinics, hospitals and institutions in which cancer is treated, located either in the United States or international markets.

To support our sales and marketing efforts in the United States, we maintain a sales and marketing organization currently consisting of eight persons. Our vice president of international sales directs our international sales and marketing efforts, which consist of relationships with distributors and other agents as well as our own direct sales efforts.

We are currently concentrating on expanding our business into international markets, which we consider to represent our greatest business opportunities.

We entered into an agreement with Dalian Orientech Co. LTD, a privately owned company, to assist us in obtaining regulatory approval for the sale of the BSD-2000 in the People's Republic of China, and thereafter to act as our distributor for the sale of the BSD-2000 in that country. We subsequently obtained Chinese regulatory approval, allowing the distributor to begin to market and sell the BSD-2000 system to hospitals in China. We believe the prospects for increased sales of our systems in China represent one of our greatest business opportunities.

Historically, a significant portion of our revenues have been derived from sales to Medizin-Technik GmbH located in Munich, Germany, which is our exclusive distributor of hyperthermia systems in Germany, Austria and Switzerland, and to certain medical institutions in Belgium and the Netherlands. Medizin Technik is owned by Dr. Gerhard W. Sennewald, one of our directors and a significant stockholder. We have also sold systems in Poland and Italy, and have conducted our own direct sales and marketing efforts in other countries in Europe, India, and Asia. We recently announced the selection of a distributor in India, the world's second most populated country, and have appointed a sales manager for Latin America whose focus will be the medical markets in Mexico, Brazil, Argentina and Chile, as well as other Latin American countries.

Third-Party Reimbursement

We view obtaining adequate third-party reimbursement arrangements as essential to achieving commercial acceptance of our hyperthermia therapy products. Our products are purchased primarily by clinics, hospitals and other medical institutions that bill various third-party payors, such as Medicare, Medicaid, other government programs and private insurance plans, for the health care services provided to their patients using our products. Additionally, managed care organizations and insurance companies directly pay for services provided to their patients. The Center for Medicare and Medicaid Services, or CMS, has established 23 billing codes that allow for third-party reimbursement and can be used for or in combination with the delivery of hyperthermia therapy, depending on the circumstances of the treatment. Appropriate codes apply to billing for superficial and interstitial hyperthermia delivered using our BSD-500 systems when used in combination with radiation therapy. Codes also have been established for providing deep hyperthermia therapy. Billing codes are available for both institutions and physicians. Even though billing codes have been established, payments must also be approved by and authorized through the various third-party payors, and third-party payors can establish varying reimbursement plans and levels that can affect hyperthermia reimbursement levels.

In November 1995, HCFA, the predecessor agency to CMS, authorized Medicare reimbursement of costs for all investigational therapies and devices for which underlying questions of safety and effectiveness of that device type have been resolved, based on categorization by the FDA. Our BSD-2000 system, which has been given IDE status by the FDA, has been placed in this category by the FDA, and thus may be reimbursed by Medicare.

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Medical reimbursement rates are unpredictable, and we cannot project the extent to which our business may be affected by future legislative and regulatory developments. There can be no assurance that future health care legislation or regulation will not have a material adverse effect on BSD's business, financial condition and results of operations, or that reimbursement, existing or in the future, will be adequate for all customers.

Competition

Competition in the medical products industry is intense. We believe that established product lines and cancer therapies, FDA approvals, know-how and reputation in the industry are key competitive factors. Currently, only a few companies besides BSD have received FDA approval to manufacture and sell hyperthermia therapy systems within the United States, including U.S. Labthermics and Celsion Corporation. Celsion has been principally involved with clinical trials related to thermotherapy, hyperthermia and related fields, however Celsion has announced the transformation of its company from a medical device company to a biopharmaceutical, solely focused on the development of drugs for the treatment of cancer. Labthermics produces ultrasound-based systems, which compete with our microwave hyperthermia systems; however Labthermics is not currently active in the sale of products in our industry. Several other companies have received IDEs in the United States or other international clearance for certain experimental hyperthermia systems designed to treat both malignant and benign diseases. Additionally, other companies, particularly established companies that currently manufacture and sell other cancer therapy systems, could potentially become competitors (in that they are also engaged in cancer treatment businesses), and they have significantly greater resources than we do.

Competitors in the thermal ablation market include RadioTherapeutics, a division of Boston Scientific Corporation, Covidien Ltd., Angiodynamics, Inc. and Microsulis Medical Ltd.

Product Service

We generally provide a 12-month warranty and record a liability for the warranty following installation on all cancer treatment systems and a 90-day limited warranty on individual components. We install and service the hyperthermia systems we sell to domestic customers. In addition, we or our consultants provide technical and clinical training to our customers. Subsequent to the applicable warranty period, we offer our domestic customers full or limited service contracts.

Generally, our distributors install and service systems sold to foreign customers and are responsible for managing their own warranty programs for their customers, including labor and travel expenses. We provide warranties for the replacement and/or repair of parts for 12 months for systems sold internationally through distributors and for 90 days for individual components. Spare parts are generally purchased by the distributors and stored at the distributors' maintenance facilities to allow prompt repair. Distributor service personnel are usually trained at customer sites and at our facilities in Salt Lake City, Utah.

Production

We manufacture and test our systems and products at our facilities in Salt Lake City, Utah. Our manufacturing facility is ISO 13485:2003 certified and follows FDA quality systems regulations. Some equipment components we purchase from suppliers are customized to our specifications. Key factors in our manufacturing process are assembly and testing. We purchase component parts and other materials from a variety of suppliers. We do not depend on a single supplier for any item, and believe we can acquire materials and parts from multiple sources on a timely basis.

Product Liability Exposure

The manufacturing and marketing of medical devices involves an inherent risk of product liability. We presently carry product liability insurance with coverage limits of $3 million. However, we cannot assure that our product liability insurance will provide adequate coverage against potential claims that might be made against us. No product liability claims are presently pending against us; however, we cannot assume that product liability claims will not be filed in the future or that such claims will not exceed our coverage limits.

Government Regulation

The medical devices that we have developed and are developing are subject to extensive and rigorous regulation by numerous governmental authorities, principally by the FDA, and comparable foreign agencies. Pursuant to the Federal Food, Drug and Cosmetic Act, as amended, the FDA regulates and must approve the clinical testing, manufacture, labeling, distribution, and promotion of medical devices in the United States.

Although our MicroThermX-100 system has received FDA marketing clearance as a 510(k) submission, most of our hyperthermia treatment systems, including the BSD-500 and the BSD-2000 and related products, have required or require PMA or an HDE marketing approval from the FDA instead of the simpler 510(k) clearance. PMA or HDE approval requires that we demonstrate that the medical device is safe and effective or safe with a probable benefit. To do this, we conduct either laboratory and/or clinical testing. FDA approval must be obtained before commercial distribution of the product. We intend to continue to make improvements in and to our existing products. Significant product changes for PMA or HDE approved devices must be submitted to the FDA under investigational device exemptions, or IDEs, or under PMA supplements. As described in the section entitled “Our Products and Services” above, we have obtained a PMA for our BSD-500 systems and IDE status for our BSD-2000 system. A PMA submission was made to the FDA for the BSD-2000 in March 2006. Due to the lengthy nature of the PMA review process and the length of time that the submission was under review by the FDA, we worked closely with FDA to seek the most expeditious pathway that could lead to marketing approval for the BSD-2000. FDA recommended that BSD pursue HDE marketing approval rather than continue to pursue the PMA approval and BSD followed FDA’s recommendation. On May 18, 2009, the FDA granted HUD designation for the BSD-2000 Hyperthermia System for use in conjunction with radiation therapy for the treatment of cervical carcinoma patients who are ineligible for chemotherapy. This is the first of the two steps required to obtain HDE marketing approval, which requires us to demonstrate the device’s safety and probable benefit in treating a disease or condition that affects fewer than 4,000 individuals in the United States per year. We subsequently filed an HDE submission with the FDA, which is the final step required to obtain HDE marketing approval. The HDE is still under review by the FDA. The HDE approval of the BSD-2000 Hyperthermia System would authorize the commercial sale of the BSD-2000 in the United States.

Foreign countries, in which our products are or may be sold, have regulatory requirements that can vary widely from country to country. Sales into the European Union, or EU, require compliance with the Medical Devices Directive, or MDD, and require us to obtain the necessary certifications to have a CE Mark affixed to our products. We have obtained necessary ISO certification of our quality, development, and manufacturing processes, and we have successfully completed the CE Mark testing and Annex II audit. However, we must maintain compliance with all current and future directives and requirements to maintain ISO certification and to continue to affix the CE Mark, and there can be no assurance that we will continue to maintain compliance with regulatory requirements imposed on us.

After we receive FDA approval to distribute a medical device, we continue to have ongoing responsibilities under the Federal Food, Drug, and Cosmetic Act and FDA regulations. The FDA reviews design and manufacturing practices, labeling, record-keeping, and required reporting of adverse experiences. All medical devices must be manufactured in accordance with regulations specified in the FDA Quality System Regulations, or QSR, and in compliance with the ISO and other applicable standards. In complying with these regulations, we must continue to expend time, money and effort in the areas of design control, production, and quality control to ensure full compliance. The FDA's mandatory Medical Device Reporting regulation requires us to provide information to the FDA on death or serious injuries alleged to have been associated with the use of our products, as well as information on product malfunctions that would likely cause or contribute to a death or serious injury if the malfunctions were to recur. In Europe, the MDD vigilance system regulations require that we, through a representative in Europe, provide information to authorities on death or serious injuries alleged to have been associated with the use of our products, as well as information on product malfunctions that would likely cause or contribute to a death or serious injury if the malfunctions were to recur. If the FDA were to assert that we are not in compliance with applicable laws or regulations, or that any of our medical devices are ineffective or pose an unreasonable risk to patient health, the FDA could seize our medical devices, ban such medical devices, or order a recall, repair, replacement or refund of such devices, and require us to notify health care professionals and others that the devices present unreasonable risk of substantial harm to the public. The FDA may also impose operating restrictions, restrain certain violations of law, and assess civil or criminal penalties against us. The FDA can also recommend prosecution to the Department of Justice. Certain regulations are subject to administrative interpretation and we cannot assure that future interpretations made by the FDA or other regulatory bodies, with possible retroactive effect, will not adversely affect us.

International sales of medical devices are subject to FDA export requirements. We have obtained export approvals for all countries into which we have delivered products. This includes countries in Western Europe and much of Eastern Europe and many Asian countries.

International sales are subject to the regulatory and safety requirements of the country into which the sale occurs. There can be no assurance that all of the necessary approvals will be granted on a timely basis or at all. Delays in receipt of or failure to receive such approvals would have a material adverse effect on our financial condition and results of operations.

In addition to FDA regulations, certain U.S. health care laws apply when a claim for reimbursement for one of our medical devices is submitted to Medicare, Medicaid, or other federal health care programs. For instance, federal law prohibits the filing of false or improper claims for federal payments. In addition, federal law prohibits the payment of anything of value for the purpose of inducing referrals of business reimbursable under a federal health care program. Other federal laws prohibit physicians from making referrals for certain services and items payable under certain federal programs if the physician has a financial relationship with the entity providing the service or item.

All of these laws are subject to evolving interpretations. If the federal government were to conclude that we are not in compliance with any of these health care laws, we could be subject to substantial criminal and civil penalties, and could be excluded from participation as a supplier to beneficiaries in federal health care programs.

The Federal Communications Commission, or FCC, regulates the frequencies of microwave and radio frequency emissions from medical and other types of equipment to prevent interference with commercial and governmental communications networks. The BSD-500 fixed frequency systems and applicators and the MTX-180 ablation system and applicators emit 915 MHz, which is approved by the FCC for medical applications. Accordingly, these systems do not require shielding to prevent interference with communications. Our BSD-2000 deep hyperthermia variable-frequency generators and applicators require electromagnetic shielding.

Patents, Licenses, and Other Rights

Because of the substantial length of time and expense associated with bringing new products through development and regulatory approval to the marketplace, the medical device industry places considerable importance on obtaining patent and trade secret protection for new technologies, products and processes. Our policy is to file patent applications to protect significant technology, inventions and product improvements. We currently own two patents in the United States related to certain components or technology of our hyperthermia systems. In addition, three current patents were assigned to TherMatrx, for which we obtained a license. We currently have one patent license from Duke University. Six new U.S. patent applications are pending and have been published, other U.S. patents are pending but not published, and one foreign patent is pending. We believe that our patents represent the early pioneering and dominant patents in this field.

In July 1979, we entered into an exclusive worldwide license for a unique temperature probe called the Bowman Probe. The license will remain in effect as long as the technology does not become publicly known as a result of actions taken by the licensor. We pay royalties based upon our sales of the Bowman Probe. The license agreement was amended and renewed in August 2000 and is currently in effect.

On July 31, 2007, BSD obtained an exclusive sub-license to a patent owned by Duke University using phased array technology for the treatment of primary breast cancer on terms that included hyperthermia equipment upgrades and payment of some prior patent costs. This technology and patent is expected to enhance future developments with the current BSD phased array hyperthermia systems.

On July 1, 2001, we acquired the rights to all FDA approvals and the rights to manufacture all cancer products formerly owned by Clini-Therm Corp. These products are related to the hyperthermia therapy delivered by our BSD-500 systems, the exclusive patent obtained from UCSF, and our enhancements to such systems involve incorporating some of the Clini-Therm rights we acquired into such systems. This involved only a one-time cash payment with no continuing costs.

We cannot assure that the patents presently issued to us will be of significant value to us in the future or will be held valid upon judicial review. Successful litigation against these patents by a competitor would have a material adverse effect upon our business, financial condition and results of operations. We believe that we possess significant proprietary know-how in our hardware and software capabilities. However, we cannot assure that others will not develop, acquire or patent technologies similar to ours or that such secrecy will not be breached.

Research and Development

Research and development expenses for fiscal years 2009 and 2008 were $2,043,268 and $1,737,924, respectively. Research and development expenses in fiscal 2009 related to the following:

- updating of our commercial version of the BSD-2000 with complete modernization of the computer system, applicators and patient supports and development of commercial configuration of BSD-2000 3D/MR;
- installing BSD-2000 system at Long Beach Memorial Hospital;
- updating our BSD-500 and BSD-2000 system designs for both reduced cost, improved manufacturability, and more up-to-date technology;
- making enhancements to the BSD-500 and 2000 systems;

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- incorporating new development regulations in design process;
- completing the MicroThermX-180 microwave ablation system;
- designing a new generation of microwave ablation system microwave generator;
- designing and testing of new advanced cooled disposable microwave ablation applicators;
- supporting BSD-2000 FDA approval efforts;
- installing in collaboration with General Electric and Duke engineers a new BSD-2000/3D/MR at Duke University;
- developing new microwave applicators and technical research to evaluate the various treatment sites and diseases suitable for the application of microwave ablation and thermal therapy; and
- R&D projects not publically disclosed.

Technological changes play an important part in the advancement of our industry. We intend to continue to devote substantial sums to research and development. Research and development efforts inherently involve costs, risks and uncertainties that could aversely affect our projections, outlook and operating results.

Seasonality

Our operations are generally not subject to seasonal fluctuations.

Segment Information and Sales Concentrations

We consider our operations to comprise one business segment. All of our operating assets are located in the United States.

A significant portion of our revenues are derived from sales to Medizin-Technik GmbH located in Munich, Germany, which is a significant distributor of our products in Europe and which is owned by Dr. Gerhard W. Sennewald, one of our directors and a significant stockholder. For fiscal year 2009 we had sales of $603,000, or 17% of our total sales, from the sale of systems and various component parts sold to Medizin-Technik, as compared to sales of $2,809,132, or 55% of our total sales, in fiscal 2008. Management believes the terms of the transactions with Medizin-Technik were arms length and fair to the Company.

A significant portion of our revenues are derived from sales to foreign customers. During the years ended August 31, 2009, 2008 and 2007, export sales totaled $1,668,547, $2,812,796 and $1,787,363, or 47%, 55% and 63% of total sales, respectively. During fiscal year 2009, export sales to China, Switzerland and Poland were approximately 16%, 13% and 14% of total sales, respectively. During fiscal years 2008 and 2007, export sales to Switzerland were approximately 53% and 44% of total sales, respectively.

Backlog

As of August 31, 2009, we had no sales backlog.

Employees

As of August 31, 2009, we had 49 employees; 46 of whom were full-time employees. None of our employees are covered by a collective bargaining agreement. We consider our relations with our employees to be satisfactory. We depend upon a limited number of key management, manufacturing, and technical personnel. Our future success will depend in part on our ability to retain these highly qualified employees.

Available Information

We file annual, quarterly and current reports, and other reports and documents with the Securities and Exchange Commission (the "SEC"). The public may read and copy any materials we file with the SEC at the SEC's Public Reference Room, 100 F Street, N.E., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The address of that website is http://www.sec.gov.

The Company's Internet address is http://www.bsdmc.com. We make available on or through our investor link on our website, free of charge, our Annual Reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports as soon as reasonably practicable after this material is electronically filed or furnished to the SEC. We also make available, on our website, the charter of the Audit Committee of our Board of Directors and our Code of Ethics. Information contained on our website is not deemed to be a part of this Annual Report.

ITEM 1A. RISK FACTORS

Our future operating results are highly uncertain. Before deciding to invest in BSD Medical or to maintain or increase your investment, you should carefully consider the risks described below, in addition to the other information contained in this annual report on Form 10-K. If any of these risks actually occur, our business, financial condition or results of operations could be seriously harmed. In that event, the market price for our common stock could decline and you may lose all or part of your investment. Although the Company has attempted to list the factors of which it is currently aware that may have an impact on its operations, there may be other factors of which the Company is currently unaware or to which it does not assign sufficient significance, and the following list should not be considered comprehensive.

We have a history of significant operating losses and such losses may continue in the future.

Since our inception in 1978, our expenses have substantially exceeded our revenue, resulting in continuing losses and an accumulated deficit of $16,674,122 at August 31, 2009. We reported net losses of $11,384,870, $2,439,099 and $3,348,195 in fiscal years 2009, 2008 and 2007, respectively.

We may continue to incur operating losses in the future as we continue to incur costs to develop our products, protect our intellectual property and expand our sales and marketing activities. To become profitable we will need to increase significantly the revenues we receive from sales of our hyperthermia therapy products and to successfully commercialize our new ablation product to improve our profitability on a quarterly or annual basis. We have been unable to do this in the past and we may be unable to do so in the future, and therefore may never achieve profitability.

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Adverse worldwide economic conditions have made it difficult for our customers to obtain approval for the purchase of and funding for our hyperthermia systems.

Our hyperthermia cancer treatment systems represent capital equipment purchases for our customers. Adverse worldwide economic conditions have made it difficult for our customers to obtain approval for the purchase of and funding for our hyperthermia systems. This has contributed to a lack of growth in our worldwide sales of our system. To the extent that adverse economic conditions continue, we believe our sales of hyperthermia systems will continue to be negatively impacted and possibly decrease in fiscal year 2010 as compared to fiscal year 2009.

Our revenues can fluctuate significantly from period to period because our sales, to date have been based upon a relatively small number of systems, the sales price of each being substantial enough to greatly impact revenue levels in the periods in which they occur.

Our revenues can fluctuate significantly from period to period because our sales, to date, have been based upon a relatively small number of hyperthermia systems, the sales price of each being substantial enough to greatly impact revenue levels in the periods in which they occur. Sales of a few systems, particularly BSD-2000/3D/MR systems, can cause a large change in our revenues from period to period and the sales cycle for our systems generally extends over multiple financial reporting periods. In addition, differences in the configuration of the systems sold, pricing, and other factors can result in significant differences in the sales price per system and in the total revenues reported in a given period. As a result, there may be quarterly financial reporting periods where we may report no or minimal revenues from the sale of hyperthermia systems.

A significant portion of our revenues have been from related parties, and we have had significant concentrations of revenues in foreign countries.

During the years ended August 31, 2009, 2008, and 2007, we had sales of $603,000, $2,809,132 and $1,385,332, respectively, to entities controlled by a significant stockholder and member of the Board of Directors. These related party transactions represent 17%, 55% and 49% of total sales for each respective year.

A significant portion of our revenues are derived from sales to foreign customers. During the years ended August 31, 2009, 2008 and 2007, export sales totaled $1,668,547, $2,812,796 and $1,787,363, or 47%, 55% and 63% of total sales, respectively. During fiscal year 2009, export sales to China, Switzerland and Poland were approximately 16%, 13% and 14% of total sales, respectively. During fiscal years 2008 and 2007, export sales to Switzerland were approximately 53% and 44% of total sales, respectively.

To the extent that we are unable to maintain or increase the level of our revenues derived from related parties or foreign customers, the results of our operations could be negatively impacted.

Our hyperthermia therapy products may not achieve market acceptance which could limit our future revenue and ability to achieve profitability.

To date, hyperthermia therapy has not gained wide acceptance by cancer-treating physicians. We believe this is due in part to the lingering impression created by the inability of early hyperthermia therapy technologies to focus and control heat directed at specific tissue locations and conclusions drawn in early scientific studies that hyperthermia was only marginally effective. Additionally, market acceptance depends upon physicians and hospitals obtaining adequate reimbursement rates from third-party payors to make our products commercially viable, and we believe that reimbursement rates have not been adequate to stimulate strong interest in adopting hyperthermia as a new cancer therapy. If our sales and marketing efforts to promote hyperthermia therapy acceptance in the medical community fail, or our efforts to improve third-party reimbursement rates for hyperthermia therapy are not successful, then our

future revenue from sales of our products may be limited, and we may never be able to obtain profitable recurring operations.

We have delayed market introduction of our MTX-180 ablation product and are unable to predict when design modification, marketing and sales strategies will be completed or when regulatory approval will be obtained.

Our MTX-180 Microwave Ablation System represents a major part of our business plan moving forward. The FDA granted us a 510(k) clearance to market the MTX-100, which authorizes the commercial sale of the device in the United States. Since receipt of FDA clearance to market the MTX-100, we have devoted significant efforts to optimizing the design of the system to improve its ease of use and its medical applications. Following clinical evaluations of Phase I, we decided to postpone market entry until completion of the optimized Phase II design, the MTX-180. We believe this will allow us to enter this market with an optimized system that will have a wider range of clinical applications and increased revenue streams.

Additional time will be required to complete the market-ready Phase II design, apply for applicable regulatory approvals, and finalize the manufacturing processes for the MTX-180 and the applicators. Also, final marketing and sales strategies must be completed prior to market introduction. We currently are unable to predict when these efforts will be completed and when revenues from the sale of the MTX-180 and related applicators will begin. We do not believe, however, that these revenues will begin until at least the first or second quarter of calendar year 2010. We cannot be assured that our efforts to commercialize the MTX-180 will be successful. If our efforts to commercialize the MTX-180 are not successful, our business will be adversely affected.

Sales of our product could be significantly reduced if government, private health insurers and other third-party payors do not provide sufficient coverage or reimbursement.

Our success in selling our products will depend in large part on the extent to which reimbursement for the costs of our products and related treatments are available from government health agencies, private health insurers and other third-party payers. Despite the existence of general reimbursement policies, local medical review policies may differ for public and private insurance payers, which may cause payment to be refused for some hyperthermia treatments. Private payers also may refuse to pay for hyperthermia treatments.

Medical reimbursement rates are unpredictable and we cannot predict the extent to which our business may be affected by future legislative and regulatory developments. Future health care legislation or regulation may limit our business or impose additional delays and costs on our business and third-party reimbursement may not be adequate to cover our costs associated with producing and selling our products.

Cancer therapy is subject to rapid technological change and therapies that are more effective than ours could render our technology obsolete.

The treatment of cancer is currently subject to extensive research and development. Many cancer therapies are being researched and our products may be rendered obsolete by existing therapies and as a result of therapy innovations by others. If our products are rendered obsolete, our revenue will decline, we may never achieve profitability, and we may not be able to continue in business.

Additionally, other companies, particularly established companies that currently manufacture and sell other cancer therapy systems, could potentially become competitors (in that they are also engaged in cancer treatment business), and they have significantly greater resources than we do.

Some of the medical institutions to which we have sold in the past have not been able to pay for their equipment, and some of our sales have therefore become substantial bad debts, a risk that could continue into the future.

A limited number of our customers have been developing clinics, and these customers have been particularly vulnerable to financial difficulties that can cause them to be unable to pay for equipment that they have purchased. If we choose to accept higher risk sales opportunities to clinics in the future, we will be subject to these customer credit risks that could lower future net sales due to bad-debt write offs, resulting in losses in future periods and potentially lowering the value of our stock. While we attempt to provide for foreseeable doubtful accounts, we cannot assure that this provision will always be adequate to cover our credit risks.

Increasing sales of our hyperthermia systems depends on our ability to successfully expand our sales distribution channels; however, we have had failures with the productivity of new channels of distribution in the past. Expanding our channels of distribution will also significantly increase our sales expenses, which could negatively impact our financial performance.

We believe that the success of our efforts to increase sales of our hyperthermia systems in the future depends on our ability to successfully expand our sales distribution channels. Historically, we have sometimes failed in establishing successful new sales channels.

We anticipate that the success of our multi-year plan for selling hyperthermia systems will require expanding our sales and marketing organization through a combination of direct sales people, distributors and internal and external marketing expertise. However, as we pursue our marketing plan, there can be no assurance that we will be successful in securing reliable channels of distribution to meet our plan through expanded sales. Recruiting and training new distribution channels can take time and considerable expense. We project that sales and marketing expenses will increase substantially in the future as compared to past years. This added expense could have an adverse effect on our future financial performance that is greater than any potential increases in sales.

In addition, there can be no assurance that our channels of distribution that have been successful in the past will be successful in the future. We have derived a significant portion of our revenue from sales in Europe and in China. Sales in Europe were made through our distributor Medizin-Technik, GmbH, which also purchases equipment components and parts from us. Medizin-Technik is controlled by Dr. Sennewald, one of our directors. The loss or ineffectiveness of either Medizin-Technik or our Chinese distributor as a distributor and significant customer could result in lower revenue.

We may face significant uncertainty in the industry due to government healthcare reform.

Political, economic and regulatory influences are subjecting the healthcare industry to fundamental changes. We anticipate that the current administration, Congress and certain state legislatures will continue to review and assess alternative healthcare delivery systems and payment methods with an objective of ultimately reducing healthcare costs and expanding access. Public debate of these issues will likely continue in the future. The uncertainties regarding the ultimate features of reform initiatives and their enactment and implementation may have an adverse effect on our customers' purchasing decisions regarding our products and services. At this time, we cannot predict which, if any, healthcare reform proposals will be adopted, when they may be adopted or what impact they may have on our business.

We are subject to government regulations that can delay our ability to sell our products and cause us to incur substantial expenses.

Our research and development efforts, pre-clinical tests and clinical trials, and the manufacturing, marketing, distribution and labeling of our products are subject to extensive regulation by the FDA and comparable international agencies. The process of obtaining FDA and other required regulatory approvals is lengthy and expensive and our financial resources are limited.

Obtaining pre-market approval or marketing clearance as a 510(k) submission from the FDA is necessary for us to commercially market our systems in the United States. Obtaining approvals is a lengthy and expensive process. We may not be able to obtain these approvals on a timely basis, if at all, and such failure could harm our business prospects substantially. Further, even if we are able to obtain the approvals we seek from the FDA, the approvals granted might include significant limitations on the indicated uses for which the products may be marketed, which restrictions could negatively impact our business. As described above in "Business—Our Products and Services", the FDA is currently reviewing our HDE marketing submission for the BSD-2000. We are unable to predict when the review process will be completed and its ultimate outcome. If we are unable to receive HDE marketing approval, or if the FDA requires us to undergo extensive testing in order to grant HDE marketing approval, our business could be adversely affected.

After a product is approved for commercial distribution by the FDA, we have ongoing responsibilities under the Federal Food, Drug, and Cosmetic Act and FDA regulations, including regulation of our manufacturing facilities and processes, labeling and record-keeping, and reporting of adverse experiences and other information. Failure to comply with these ongoing requirements could result in the FDA imposing operating restrictions on us, enjoining or restraining certain violations, or imposing civil or criminal penalties on us.

All of these laws are subject to evolving interpretations. If the federal government were to conclude that we are not in compliance with any of these health care laws, we could be subject to substantial criminal and civil penalties, and could be excluded from participation as a supplier to beneficiaries in federal health care programs.

We depend on adequate protection of our patent and other intellectual property rights to stay competitive.

We rely on patents, trade secrets, trademarks, copyrights, know-how, license agreements and contractual provisions to establish and protect our intellectual property rights. Our success will substantially depend on our ability to protect our intellectual property rights and maintain rights granted to us through license agreements. Our intellectual property rights may only afford us limited protection and may not adequately protect our rights or remedies to gain or keep any advantages we may have over our competitors, which could reduce our ability to be competitive and generate sales and profitability.

In the past, we have participated in substantial litigation regarding our patent and other intellectual property rights in the medical device industry. We have previously filed lawsuits for patent infringement against three of our competitors and subsequently settled all three of those lawsuits. Additional litigation against other parties may be necessary in the future to enforce our intellectual property rights, to protect our patents and trade secrets, and to determine the validity and scope of our proprietary rights. This litigation may require more financial resources than are available to us. We cannot guarantee that we will be able to successfully protect our rights in litigation. Failure to successfully protect our rights in litigation could reduce our ability to be competitive and generate sales and profitability.

A product liability settlement could exceed our ability to pay.

The manufacturing and marketing of medical devices involves an inherent risk of product liability. We presently carry product liability insurance with coverage limits of $3 million. Our product liability insurance does not cover intended injury, injury or damage resulting from the intoxication of any person, payment of workers' compensation benefits, injury of our own employee, injury or damage due to war, damage to property that we own, damage to our work, loss of use of property, patent infringements, pollution claims, interest payments, depreciation of property, or injury or damage resulting from asbestos inhalation. We are responsible to pay the first $10,000 resulting from any claim up to a maximum of $50,000 in one year. We cannot assure that our product liability insurance will provide adequate coverage against potential claims that might be made against us. If we were to be subject to a claim in excess of our coverage or to a claim not covered by our insurance and the claim succeeded, we would be required to pay the claim from our limited resources, which would reduce our limited capital resources and liquidity and reduce capital we could otherwise use to obtain approvals for and market our products. In addition, liability or alleged liability could harm our business by diverting the attention and resources of our management and by damaging our reputation.

We are dependent upon key personnel, some of whom would be difficult to replace.

Our success will be largely dependent upon the efforts of Harold R. Wolcott, our President, Paul F. Turner, our Senior Vice President and Chief Technology Officer, and Dixie T. Sells, our Vice President of Regulatory Affairs, and other key employees. We do not maintain key-person insurance on any of these employees. Our future success also will depend in large part upon our ability to identify, attract and retain other highly qualified managerial, technical and sales and marketing personnel. Competition for these individuals is intense. The loss of the services of any of our key personnel, the inability to identify, attract or retain qualified personnel in the future or delays in hiring qualified personnel could make it more difficult for us to manage our business and meet key objectives such as the sale of our products and the introduction of new products.

The market for our stock is limited and our stock price may be volatile.

The market for our common stock has been limited due to low trading volume and the small number of brokerage firms acting as market makers. Because of the limitations of our market and volatility of the market price of our stock, investors may face difficulties in selling shares at attractive prices when they want to. The average daily trading volume for our stock has varied significantly from week to week and from month to month, and the trading volume often varies widely from day to day. The following factors could impact the market for our stock and cause further volatility in our stock price:

- announcements of new technological innovations;
- FDA and other regulatory developments;
- changes in third-party reimbursements;
- developments concerning proprietary rights;
- third parties receiving FDA approval for competing products; and
- market conditions generally for medical and technology stocks.

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Our directors and executive officers own a substantial number of shares of our capital stock, which could discourage or prevent a takeover, even if an acquisition would be beneficial to our stockholders.

Our directors and executive officers own approximately 40% of our outstanding voting power. Accordingly, these stockholders, individually and as a group, may be able to influence the outcome of stockholder votes involving the election of directors, the adoption or amendment of provisions in our certificate of incorporation and bylaws and the approval of certain mergers or other similar transactions, such as a sale of substantially all of our assets. Such control by existing stockholders could have the effect of delaying, deferring or preventing a change in control of our company.

Future sales of shares of our securities pursuant to our universal shelf registration statement may negatively affect our stock price.

We currently have the ability to offer and sell up to $50.0 million of common stock, preferred stock, warrants, senior debt, subordinated debt or units under a currently effective universal shelf registration statement. Sales of substantial amounts of shares of our common stock or other securities under our universal shelf registration statement could lower the market price of our common stock and impair our ability to raise capital.

Anti-takeover provisions in our certificate of incorporation may have a possible negative effect on our stock price.

Certain provisions of our certificate of incorporation and bylaws may make it more difficult for a third party to acquire, or discourage a third party from attempting to acquire, control of us. We have in place several anti-takeover measures that could discourage or prevent a takeover, even if an acquisition would be beneficial to our stockholders. The increased difficulties faced by a third party who wishes to acquire us could adversely affect our stock price.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We own our office, production and research facilities located in Salt Lake City, Utah. The complete headquarters and production facility occupies approximately 20,000 square feet. The building is currently in good condition, is adequate for our needs, and is suitable for all company functions. We believe that we carry adequate insurance on the property.

ITEM 3. LEGAL PROCEEDINGS

There are no material legal proceedings, to our knowledge, pending against or being taken by BSD Medical Corporation.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

None.

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PART II

ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

On July 9, 2005, the American Stock Exchange (AMEX) approved the listing for BSD Medical Corporation and the shares began trading on that day under the symbol “BSM”. On April 22, 2008, the shares began trading on the Nasdaq Stock Market under the symbol “BSDM”. The following table sets forth the high and low sales prices, as provided by AMEX and NASDAQ for the quarters in fiscal years 2008 and 2009. The amounts reflect inter-dealer prices, without retail mark-up, markdown or commission, and may not represent actual transactions.

Quarter Ended:	High	Low
November 30, 2007	$7.11	$4.89
February 29, 2008	6.35	4.30
May 31, 2008	7.50	4.57
August 31, 2008	8.20	5.00
November 30, 2008	8.50	3.10
February 28, 2009	5.18	2.50
May 31, 2009	2.99	1.17
August 31, 2009	2.31	1.70

As of August 31, 2009, there were approximately 488 holders of record of our common stock. We have not paid any cash dividends on our common stock since our inception, and we currently plan to retain our future earnings, if any, to fund the growth of our business.

On November 3, 2009, the last reported sales price of our common stock on the Nasdaq Stock Market was $2.16 per share.

Repurchases of Equity Securities

None.

Recent Sales of Unregistered Securities

Following is a summary of sales of unregistered securities for the fiscal year ended August 31, 2009. We issued a total of 4,715 shares of our common stock on September 1, 2008 and a total of 28,200 shares of our common stock on May 1, 2009 to members of our Board of Directors pursuant to the Company’s Amended and Restated 1998 Directors Stock Plan. All securities were issued as restricted common shares pursuant to Section 4(2) of the Securities Act of 1933, as amended, and/or the rules promulgated pursuant to Section 4(2). These shares are generally subject to Rule 144 of the Securities and Exchange Commission. Generally, Rule 144 requires shareholders to hold the shares for a minimum of six months before sale. In addition, officers, directors and other affiliates are further restricted in their ability to sell such shares. There have been no underwriters of these securities and no commissions or underwriting discounts have been paid.

	Consideration or Nature of Service Performed	Shares Issued	Value Received
Members of Board of Directors	Board Services	32,915	$ 105,180

Performance Graph

The following graph shows a comparison of the five-year cumulative total return for the Company's common stock, the S&P 500 Index, and the S&P Health Care Equipment Index, assuming an investment of $100 on August 31, 2004. The cumulative return of the Company was computed by dividing the difference between the price of the Company's common stock at the end and the beginning of the measurement period (August 31, 2004 to August 31, 2009) by the price of the Company's common stock at the beginning of the measurement period.

ITEM 6. SELECTED FINANCIAL DATA

The following selected financial data as of and for each of the fiscal years in the five year period ended August 31, 2009 were derived from the Company's financial statements audited by Tanner LC, independent registered public accountants. The data set forth below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in Item 7 of this Form 10-K and the financial statements and notes thereto included in Item 8 of this Form 10-K. See also the discussion in "The Sale of TherMatrx" included in Item 1, "Business", of this Form 10-K.

	Years Ended August 31,				
	2009	2008	2007	2006	2005
Results of Operations Data:					
Revenues	$3,536,487	$5,143,140	$2,834,386	$2,898,402	$2,021,104
Loss from operations	(6,526,493)	(4,252,344)	(6,384,540)	(5,099,151)	(2,293,696)
Net income (loss)	(11,384,870)	(2,439,099)	(3,348,195)	9,249,496	3,321,692
Income (loss) per common share - diluted	$(0.52)	$(0.11)	$(0.16)	$0.42	$0.15
Dividends per common share	$-	$-	$-	$-	$-
Balance Sheet Data:					
Total Assets	$12,857,358	$21,486,898	$24,341,640	$28,309,868	$15,599,943
Long-term debt	-	-	-	-	-
Stockholders' equity	11,940,989	20,155,860	23,183,788	25,624,001	14,977,667

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Overview

This Management's Discussion and Analysis of Financial Condition and Results of Operations and other parts of this annual report on Form 10-K contain forward-looking statements that involve risks and uncertainties. Forward-looking statements can also be identified by words such as "anticipates," "expects," "believes," "plans," "predicts," and similar terms. Forward-looking statements are not guarantees of future performance and our actual results may differ significantly from the results discussed in the forward-looking statements. Factors that might cause such differences include, but are not limited to, those discussed in the subsection entitled "Forward-Looking Statements" below and the Item 1A "Risk Factors" above. The following discussion should be read in conjunction with our financial statements and notes thereto included in this annual report on Form 10-K. All information presented herein is based on our fiscal year ended August 31, 2009. We assume no obligation to revise or update any forward-looking statements for any reason, except as required by law.

We develop, manufacture, market and service medical systems that deliver precision-focused radio frequency (RF) or microwave energy into diseased sites of the body, heating them to specified temperatures as required by a variety of medical therapies. Our business objectives are to commercialize our products developed for the treatment of cancer and to further expand our systems to treat other diseases and medical conditions. Our product line for cancer therapy has been created to offer hospitals and clinics a complete solution for thermal treatment of cancer as provided through microwave/RF systems.

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In addition to revenues from the sale of our hyperthermia cancer treatment systems, we recognize revenue from the sale of parts and accessories related to our systems, the sale of consumable devices used with certain of our systems, training, service support contracts, and other miscellaneous revenues. System and product sales totaled $3,293,116, $4,631,713 and $2,520,818 for the years ended August 31, 2009, 2008 and 2007, respectively. Sales of consumable devices, service and other revenues totaled $243,371, $511,427 and $313,568 for the years ended August 31, 2009, 2008 and 2007, respectively.

As of August 31, 2009, we had no sales backlog.

Critical Accounting Policies

The following is a discussion of our critical accounting policies and estimates that management believes are material to an understanding of our results of operations and which involve the exercise of judgment or estimates by management.

Revenue Recognition: Revenue from the sale of cancer treatment systems is recognized when a purchase order has been received, the system has been shipped, the selling price is fixed or determinable, and collection is reasonably assured. Most system sales are F.O.B. shipping point; therefore, shipment is deemed to have occurred when the product is delivered to the transportation carrier. Most system sales do not include installation. If installation is included as part of the contract, revenue is not recognized until installation has occurred, or until any remaining installation obligation is deemed to be perfunctory. Some sales of cancer treatment systems may include training as part of the sale. In such cases, the portion of the revenue related to the training, calculated based on the amount charged for training on a stand-alone basis, is deferred and recognized when the training has been provided. The sales of our cancer treatment systems do not require specific customer acceptance provisions and do not include the right of return, except in cases where the product does not function as warranted by us. To date, returns have not been significant.

Revenue from the sale of probes is recognized when a purchase order has been received, the probes have been shipped, the selling price is fixed or determinable, and collection is reasonably assured. Our customers are not required to purchase a minimum number of probes in connection with the purchase of our systems.

Revenue from manufacturing services is recorded when an agreement with the customer exists for such services, the services have been provided, and collection is reasonably assured. Revenue from training services is recorded when an agreement with the customer exists for such training, the training services have been provided, and collection is reasonably assured. Revenue from service support contracts is recognized on a straight-line basis over the term of the contract.

Our revenue recognition policy is the same for sales to both related parties and non-related parties. We provide the same products and services under the same terms to non-related parties as to related parties. Sales to distributors are recognized in the same manner as sales to end-user customers. Deferred revenue and customer deposits payable include amounts from service contracts as well as cash received for the sales of products, which have not been shipped.

Investments: Investments with scheduled maturities greater than three months, but not greater than one year, are recorded as short-term investments. As of August 31, 2009, we had no investments. As of August 31, 2008, our investments consisted primarily of a highly liquid, managed portfolio of mutual funds, and were all considered available-for-sale securities. The investments are carried at fair value based on quoted market prices, with net unrealized gains and losses reported as other comprehensive income (loss) in stockholders' equity in our balance sheets. Realized gains and losses are included in our statements of operations. We continually review our

investments to determine whether a decline in fair value below the cost basis is other than temporary. We consider several factors, evaluated both individually and collectively, with the evaluation involving a high level of complexity and judgment. The following factors, among others, are considered: general market conditions; the length of time and extent to which our investments' market value has been less than cost; the level of income that we continue to receive from our mutual funds, noting whether our dividends have been reduced or eliminated or any scheduled dividend payments have not been made; the recommendation of our investment advisor; sales of investments or our decision to sell investments subsequent to a reporting period; for our corporate debt funds, our analysis and conclusion that the decline in value is not attributable to specific conditions in any one industry or geographic area; and for our corporate debt funds, our analysis and conclusion that the default rate within the individual funds continues to be low and that no significant concentrations of debt is scheduled to mature in the next two years. Changes in financial and economic markets can result in significant changes in these estimates.

Inventory Reserves: We periodically review our inventory levels and usage, paying particular attention to slower-moving items. If projected sales do not materialize or if our hyperthermia systems do not receive increased market acceptance, we may be required to increase the reserve for inventory impairment in future periods.

Product Warranty: We provide product warranties on our systems. These warranties vary from contract to contract, but generally consist of parts and labor warranties for one year from the date of installation. To date, expenses resulting from such warranties have not been material. We record a warranty expense at the time of each sale. This reserve is estimated based on prior history of service expense associated with similar units sold in the past.

Allowance for Doubtful Accounts: We maintain allowances for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments. This allowance is a significant estimate and is regularly evaluated by us for adequacy by taking into consideration factors such as past experience, credit quality of the customer base, age of the receivable balances, both individually and in the aggregate, and current economic conditions that may affect a customer's ability to pay. If the financial condition of our customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required.

Stock-based Compensation: We account for stock-based compensation in accordance with SFAS No. 123(R), which requires us to measure the compensation cost of stock options and other stock-based awards to employees and directors at fair value at the grant date and recognize compensation expense over the requisite service period for awards expected to vest. The grant date fair value of stock options is computed using the Black-Scholes valuation model, which model utilizes inputs that are subject to change over time, including the volatility of the market price of our common stock, risk free interest rates, requisite service periods and assumptions made by us regarding the assumed life and vesting of stock options and stock-based awards. As new options or stock-based awards are granted, additional non-cash compensation expense will be recorded by us.

Income Taxes: We account for income taxes using the asset and liability method. Under the asset and liability method, deferred tax assets and liabilities are recognized for the future consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

We maintain valuation allowances where it is more likely than not that all or a portion of a deferred tax asset will not be realized. Changes in valuation allowances are included in our income tax provision in the period of change. In determining whether a valuation allowance is warranted, we evaluate factors such as prior earnings history, expected future earnings and our ability to carry back reversing items within two years to offset income taxes previously paid.

To the extent that we have the ability to carry back current period taxable losses to offset income taxes previously paid, we record an income tax receivable and a current income tax benefit.

Results of Operations

Revenues

We recognize revenue from the sale of our hyperthermia cancer treatment systems and related parts and accessories (collectively, product sales), the sale of consumable devices used with certain of our systems, training, service support contracts and other miscellaneous revenues. Our revenues can fluctuate significantly from period to period because our sales, to date, have been based upon a relatively small number of hyperthermia systems, the sales price of each being substantial enough to greatly impact revenue levels in the periods in which they occur. Sales of a few systems, particularly BSD-2000/3D/MR systems, can cause a large change in our revenues from period to period and the sales cycle for our systems generally extends over multiple financial reporting periods. In addition, differences in the configuration of the systems sold, pricing, and other factors can result in significant differences in the sales price per system and in the total revenues reported in a given period. As a result, there may be quarterly financial reporting periods where we may report no or minimal revenues from the sale of hyperthermia systems. Through August 31, 2009, we have not had any sales of our MTX-180 system.

We also believe the worldwide economic downturn has made it difficult for many of our customers to obtain approval for the purchase of our hyperthermia systems and to arrange related financing. As a result, we have not experienced significant growth in the number of our systems sold. We believe these difficulties may continue to negatively impact our operating results. To the extent that adverse economic conditions continue, we believe our sales of hyperthermia systems will continue to be negatively impacted and possibly decrease in fiscal year 2010 as compared to fiscal year 2009.

The following table summarizes the number of our hyperthermia systems sold for the years ended August 31, 2009, 2008 and 2007:

	2009	2008	2007
BSD-500	7	10	8
BSD-2000	4	-	1
BSD-2000/3D	1	1	2
BSD-2000/3D/MR	-	2	-
Total	12	13	11

We have historically derived a substantial portion of our revenues from sales to related parties. All of the related party revenue was for the sale of hyperthermia systems and related component parts and services sold to Medizin-Technik GmbH and Dr. Gerhard Sennewald. Dr. Sennewald, one of our directors and significant stockholders, is a stockholder, executive officer and a director of Medizin-Technik GmbH. We derived $603,000, or approximately 17%, of our total revenue in fiscal 2009 from sales to related parties, as compared to $2,809,132, or 55%, in fiscal 2008, and $1,385,332, or 49%, in fiscal 2007.

In fiscal 2009, we derived $2,933,487, or approximately 83%, of our total revenue from non-related parties, as compared to $2,334,008, or 45%, in fiscal 2008, and $1,449,054, or 51%, in fiscal 2007.

The following tables summarize the sources of our revenues for the years ended August 31, 2009, 2008 and 2007:

Non-Related Parties	2009	2008	2007
Product sales	$ 2,784,777	$ 2,218,700	$ 1,347,887
Consumable devices	4,802	16,247	22,970
Service contracts	78,763	56,968	41,338
Other	65,145	42,093	36,859
Total	$ 2,933,487	$ 2,334,008	$ 1,449,054

Related Parties	2009	2008	2007
Product sales	$ 508,339	$ 2,623,013	$ 1,172,930
Consumable devices	54,200	38,550	47,902
Service contracts	-	-	-
Other	40,461	147,569	164,500
Total	$ 603,000	$ 2,809,132	$ 1,385,332

Total revenues for the year ended August 31, 2009 were $3,536,487 compared to $5,143,140 for the year ended August 31, 2008, a decrease of $1,606,653, or 31%. The overall decrease in revenues in the current fiscal year is due primarily to a significant decrease in related party sales, partially offset by an increase in non-related party sales. We sold two more hyperthermia systems in fiscal year 2009 to non-related parties than we did in fiscal year 2008. In addition, we did not sell any higher priced BSD-2000/3D/MR systems to related parties in the current fiscal year.

Total revenues for the year ended August 31, 2008 were $5,143,140 compared to $2,834,386 for the year ended August 31, 2007, an increase of $2,308,754, or 81%. The overall increase in revenues in fiscal year 2008 was due primarily to significant increases in both related party and non-related party sales. We sold two more hyperthermia systems in fiscal year 2008 to non-related parties than we did in fiscal year 2007. During the year ended August 31, 2008, we sold two higher priced BSD-2000/3D/MR systems to related parties, but did not sell any of these systems in the year ended August 31, 2007.

Gross Profit

Our gross profit and gross profit percentage will fluctuate from period to period depending on the mix of revenues reported for the period and the type and configuration of the hyperthermia systems sold during the period. Our total gross profit was $1,614,269, or 46% of total sales, for fiscal year 2009, $3,058,891, or 59%, for fiscal year 2008, and $1,252,824, or 44%, for fiscal year 2007. The increase in gross profit in fiscal year 2008 compared to fiscal years 2009 and 2007, primarily resulted from the increase in product sales in fiscal 2008, for which our gross profit is higher than our other sources of revenue. In addition, as sales volume increases, we believe we will more fully absorb certain fixed operating costs that are included in cost of sales, thus increasing our gross profit percentage.

Operating Costs and Expenses: Comparison of Fiscal Years ended August 31, 2009 and 2008

Cost of Sales – Cost of sales include raw material, labor and allocated overhead costs. We calculate and report separately cost of sales for both non-related and related party sales, which are sales to Medizin-Technik and Dr. Sennewald. Cost of sales as a percentage of sales will fluctuate from period to period depending on the mix of sales for the period and the type and configuration of the hyperthermia systems sold during the period. Total cost of sales for fiscal 2009 was $1,922,218 compared to $2,084,249 for fiscal 2008, a decrease of $162,031, or 8%. This decrease resulted primarily from less product sales in fiscal 2009, particularly to related parties. In total, we sold one less hyperthermia system in fiscal 2009 than we did in fiscal 2008.

Research and Development Expenses – Research and development expenses include expenditures for new product development and development of enhancements to existing products. Research and development expenses were $2,043,268 for fiscal 2009 compared to $1,737,924, for fiscal 2008, an increase of $305,344, or approximately 18%. The increase in research and development expenses in the current fiscal year is due to our continuing efforts to develop an advanced generation of the microwave ablation system, software improvements to enhance the utility of the BSD-500 and BSD-2000 systems, possible market expansion of our current products into other cancer and non-cancerous indications, and other enhancements to our current products and the development of new products. See the discussion under “Research and Development” in Item 1, “Business” of this Annual Report.

Selling, General and Administrative Expenses – Selling, general and administrative expenses were $6,097,494 for fiscal 2009 compared to $5,573,311 in fiscal 2008, an increase of $524,183, or approximately 9%. The increase in selling, general and administrative expenses in the current fiscal year is due to severance payments made to our former president, higher non-cash stock option expense, and an increase in our board compensation due to the addition of a new director.

Operating Costs and Expenses: Comparison of Fiscal Years ended August 31, 2008 and 2007

Cost of Sales – Total cost of sales for fiscal 2008 was $2,084,249 compared to $1,581,562 for fiscal 2007, an increase of $502,687, or 32%. This increase resulted primarily from more product sales in fiscal 2008 to both non-related and related parties. Cost of sales as a percentage of sales will fluctuate from period to period depending on the mix of sales for the period and the type and configuration of the hyperthermia systems sold during the period.

Research and Development Expenses – Research and development expenses include expenditures for new product development and development of enhancements to existing products. Research and development expenses were $1,737,924 for the year ended August 31, 2008, as compared to $1,875,147, for the year ended August 31, 2007, a decrease of $137,223, or approximately 7%.

Selling General and Administrative Expenses – Selling, general and administrative expenses remained fairly constant, decreasing to $5,573,311 in the year ended August 31, 2008, from $5,762,217 for the year ended August 31, 2007, a decrease of $188,906, or approximately 3%.

Other Income (Expense) and Income Tax Benefit

Interest and Investment Income: Interest and investment income was $584,523, $1,046,313 and $1,133,125 for the years ended August 31, 2009, 2008 and 2007, respectively. The decrease in interest and investment income in the current fiscal year resulted primarily from lower levels of cash and investments compared to the prior fiscal years. The proceeds from the sale of our mutual funds in March and May 2009 have been deposited in money market funds. Therefore, we anticipate that our interest and investment income for the foreseeable future will be substantially less than previously earned on our mutual funds, but we believe we have significantly reduced the exposure to our

funds of market fluctuations.

Realized Loss on Investments: We sold 100% of our investments in mutual funds in March and May 2009. The investments had a total cost basis of $16,652,543 and we received total proceeds of $10,150,957, resulting in a realized loss of $6,501,586. We had no realized loss on investments in the prior fiscal years. As a result, at August 31, 2009, we had no investments, but cash and equivalents of $7,791,938, comprised primarily of money market funds.

Income Tax Benefit: The income tax benefit was $1,150,000, $961,000 and $1,865,000 for the years ended August 31, 2009, 2008 and 2007, respectively. The income tax benefit for each year represents an increase in our income tax receivable resulting from our ability to carry back our taxable loss in that year to offset income taxes previously paid, partially offset by a deferred tax provision in 2009 and 2008. As a result of the enactment of the American Recovery and Reinvestment Act of 2009 in February 2009, we are able to carry back current year operating losses and realized losses on investments to the extent of the remaining taxable income for our fiscal year 2005.

The deferred income tax provision of $229,000 and $168,000 in the years ended August 31, 2009 and 2008, respectively, resulted from our recording a valuation allowance against our deferred tax assets. In recording the valuation allowance, we were unable to conclude that it is more likely than not that our deferred tax assets, including our taxable loss and tax credit carry forwards, will be realized. In reaching this determination, we evaluated factors such as prior earnings history, expected future earnings and our ability to carry back reversing items to offset income taxes paid. As a result, we do not anticipate that we will record further income tax benefits from taxable losses and tax credits as a result of recording a 100% valuation allowance against the related deferred tax assets.

Fluctuation in Operating Results

Our results of operations have fluctuated in the past and may fluctuate in the future from year to year as well as from quarter to quarter. Revenue may fluctuate as a result of factors relating to the demand and market acceptance for our hyperthermia systems and related component parts and services, world-wide economic conditions, availability of financing for our customers, changes in the medical capital equipment market, changes in order mix and product order configurations, competition, regulatory developments and other matters. Operating expenses may fluctuate as a result of the timing of sales and marketing activities, research and development, and general and administrative expenses associated with our potential growth. For these and other reasons described elsewhere, our results of operations for a particular period may not be indicative of operating results for any other period.

Liquidity and Capital Resources

Since inception through August 31, 2009, we have generated an accumulated deficit of $16,674,122. Included in this amount is a realized loss on investments of $6,501,586 recorded in the year ended August 31, 2009. The remainder of the accumulated deficit can be attributed to our operations, where our operating revenues have been insufficient to cover our operating expenses. We have historically financed our operations through cash from operations, research grants, licensing of technological assets, issuance of common stock and sale of investments in spinoff operations. As of August 31, 2009, we had liquidated 100% of our investments in mutual funds and had cash and cash equivalents of $7,791,938, comprised primarily of money market funds. At August 31, 2008, we had cash, cash equivalents and investments totaling $15,881,844.

During the year ended August 31, 2009, we used cash of $3,643,814 in operating activities, primarily as a result of our net loss of $11,384,870 decreased by non cash expenses of $1,357,778, including depreciation and amortization, and stock-based compensation, and realized loss on investments of $6,501,586. Net cash used in operating activities also included an increase in income tax receivable of $200,198, increase in inventories of $369,323, decrease in accrued liabilities of $37,698 and a decrease in customer deposits of $427,677, partially offset by a decrease in receivables of $846,589, decrease in other current assets of $19,293, increase in accounts payable of $5,300 and increase in deferred

revenue of $45,406.

By comparison, net cash used in operating activities was $902,576 during the year ended August 31, 2008, primarily as a result of our net loss of $2,439,099 decreased by non cash expenses of $981,843, including depreciation and amortization, and stock-based compensation, and loss on disposition of property of $3,444. Net cash used in operating activities also included an increase in receivables of $485,755, decrease in accounts payable of $14,071, and decrease in accrued liabilities of $47,313, partially offset by a decrease in income tax receivable of $521,717, decrease in inventories of $84,914, decrease in deferred tax assets of $244,000, decrease in other current assets of $13,174, increase in customer deposits of $213,039, and an increase in deferred tax liability of $21,531.

Net cash provided by investing activities for the year ended August 31, 2009 was $10,041,100, resulting from the proceeds from the sale of investments of $10,150,957, partially offset by the purchase of investments of $23,935, the purchase of property and equipment of $36,478, and purchase of patents of $49,444. For the year ended August 31, 2008, net cash provided by investing activities was $1,722,206, resulting from the sale of investments of $4,988,760, partially offset by the purchase of investments of $1,954,490, the purchase of property and equipment of $1,291,098 and an increase in patents of $20,966.

No net cash was provided by or used in financing activities for the year ended August 31, 2009. Net cash provided by financing activities for the year ended August 31, 2008 consisted of proceeds of $158,482 from the sale of common stock through the exercise of stock options.

We expect to incur additional expenses related to the commercial introduction of our systems, research and development, trade shows, expenditures on publicity, travel, increased salaries and commissions and other related expenses. In addition, we anticipate that we will continue to incur expenses related to seeking governmental and regulatory approvals for our products and for corporate governance and compliance with the Sarbanes-Oxley Act of 2002.

We believe that our current cash and cash equivalents and income tax refunds receivable will be sufficient to fund our operations for the next twelve months.

If we cannot cover any future cash shortfalls with cost cutting or available cash, we would need to obtain additional financing. Due to adverse conditions in the global financial markets, we cannot be certain that any financing will be available when needed or will be available on terms acceptable to us. If we raise equity capital, our stockholders will be diluted. Insufficient funds may require us to delay, scale back or eliminate some or all of our programs designed to facilitate the commercial introduction of our systems or entry into new markets.

On October 1, 2009, our universal shelf registration statement was declared effective by the SEC for the issuance of common stock, preferred stock, warrants, senior debt, subordinated debt and units up to an aggregate amount of $50.0 million. However, the amount of securities which we may offer pursuant to this shelf registration statement during any twelve-month period shall be limited to one-third of the aggregate market value of the common equity of BSD Medical held by our non-affiliates since our public float is not in excess of $75.0 million. We may periodically offer one or more of these securities in amounts, prices and on terms to be announced when and if the securities are offered. At the time any of the securities covered by the registration statement are offered for sale, a prospectus supplement will be prepared and filed with the SEC containing specific information about the terms of any such offering.

As of August 31, 2009, we had no significant commitments for the purchase of property and equipment.

We had no off balance sheet arrangements as of August 31, 2009.

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Recent Accounting Pronouncements

In June 2009, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards (SFAS) No. 168, The FASB Accounting Standards Codification™ and the Hierarchy of Generally Accepted Accounting Principles – a Replacement of FASB Statement No. 162. The Codification will become the source of authoritative U.S. generally accounting principles (GAAP) recognized by the FASB to be applied to nongovernmental entities. Rules and interpretive releases of the Securities and Exchange Commission (SEC) under authority of federal securities laws are also sources of authoritative GAAP for SEC registrants. On the effective date of this Statement, the Codification will supersede all then-existing non-SEC accounting and reporting standards. All other non-grandfathered non-SEC accounting literature not included in the Codification will become nonauthoritative. This statement is effective for financial statements issued for interim and annual periods ending after September 15, 2009 (our quarter ended November 30, 2009). We are currently unable to determine what impact the future application of this pronouncement may have on our financial statements.

On June 12, 2009, the FASB issued SFAS No. 167, Amendments to FASB Interpretation No. 46(R). This statement is a revision to FASB Interpretation No. 46(R), Consolidation of Variable Interest Entities, and changes how a company determines when an entity that is insufficiently capitalized or is not controlled through voting (or similar rights) should be consolidated. The determination of whether a company is required to consolidate an entity is based on, among other things, an entity's purpose and design and a company's ability to direct the activities of the entity that most significantly impact the entity's economic performance. The statement is effective at the start of a company's first fiscal year beginning after November 15, 2009 (our fiscal year beginning September 1, 2010), or January 1, 2010 for companies reporting on a calendar year basis. We currently are unable to determine what impact the future application of this pronouncement may have on our financial statements.

On June 12, 2009, the FASB issued SFAS No. 166, Accounting for Transfers of Financial Assets – an Amendment of FASB Statement No. 140. This statement is a revision to Statement No. 140, Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities, and will require more information about transfers of financial assets, including securitization transactions, and where companies have continuing exposure to the risks related to transferred financial assets. It eliminates the concept of a "qualifying special-purpose entity," changes the requirements for derecognizing financial assets, and requires additional disclosures. The statement is effective at the start of a company's first fiscal year beginning after November 15, 2009 (our fiscal year beginning September 1, 2010), or January 1, 2010 for companies reporting on a calendar year basis. We currently are unable to determine what impact the future application of this pronouncement may have on our financial statements.

On May 28, 2009, the FASB issued SFAS No. 165, Subsequent Events. This statement is intended to establish general standards of accounting for and disclosures of events that occur after the balance sheet date but before financial statements are issued or are available to be issued. It requires the disclosure of the date through which an entity has evaluated subsequent events and the basis for that date—that is, whether that date represents the date the financial statements were issued or were available to be issued. This disclosure is intended to alert all users of financial statements that an entity has not evaluated subsequent events after that date in the set of financial statements being presented. The statement is effective for interim and annual periods ending after June 15, 2009, or our fiscal year ended August 31, 2009. The implementation of this statement did not have a material impact on our financial statements.

In December 2007, the FASB issued SFAS No. 141(R) (revised 2007), Business Combinations. This statement replaces SFAS No. 141, Business Combinations and applies to all transactions or other events in which an entity (the acquirer) obtains control of one or more businesses (the acquiree), including those sometimes referred to as "true mergers" or "mergers of equals" and combinations achieved without the transfer of consideration. This statement establishes principles and requirements for how the acquirer: a) recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, and any noncontrolling interest in the acquiree; b) recognizes and measures the goodwill acquired in the business combination or a gain from a bargain purchase; and c) determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of the business combination. This statement will be effective for fiscal years, and interim periods within those fiscal years, beginning on or after December 15, 2008, or our fiscal year beginning September 1, 2009. Earlier adoption is prohibited. We currently are unable to determine what impact the future application of this pronouncement may have on our financial statements.

In December 2007, the FASB issued SFAS 160, Noncontrolling Interests in Consolidated Financial Statements. This statement applies to all entities that prepare consolidated financial statements, except not-for-profit organizations, and amends Accounting Research Bulletin ("ARB") 51 to establish accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary. It also amends certain of ARB 51's consolidation procedures for consistency with the requirements of SFAS No. 141(R) (revised 2007). This statement will be effective for fiscal years, and interim periods within those fiscal years, beginning on or after December 15, 2008, or our fiscal year beginning September 1, 2009. Earlier adoption is prohibited. We currently are unable to determine what impact the future application of this pronouncement may have on our financial statements.

In February 2007, the FASB issued SFAS No. 159, The Fair Value Option for Financial Assets and Financial Liabilities – Including an Amendment of FASB Statement No. 115. This statement permits entities to choose to measure many financial instruments and certain other items at fair value. Most of the provisions of SFAS No. 159 apply only to entities that elect the fair value option. However, the amendment to SFAS No. 115 Accounting for Certain Investments in Debt and Equity Securities applies to all entities with available-for-sale and trading securities. SFAS No. 159 is effective as of the beginning of an entity's first fiscal year that begins after November 15, 2007. We adopted SFAS No. 159 on September 1, 2008, with no material impact on our financial statements.

In September 2006, the FASB issued SFAS No. 157, Fair Value Measurements. SFAS No. 157 defines fair value, establishes a framework for measuring fair value, and requires enhanced disclosures about fair value measurements. SFAS No. 157 requires companies to disclose the fair value of their financial instruments according to a fair value hierarchy as defined in the standard. Additionally, companies are required to provide enhanced disclosure regarding financial instruments in one of the categories, including a reconciliation of the beginning and ending balances separately for each major category of assets and liabilities. In February 2008, the FASB issued FSP No. FAS 157-2, which delays by one year the effective date of SFAS No. 157 for certain types of non-financial assets and non-financial liabilities. As a result, SFAS No. 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007 for financial assets and liabilities carried at fair value on a recurring basis, and for fiscal years beginning after November 15, 2008 for non-recurring non-financial assets and liabilities that are recognized or disclosed at fair value. In October 2008, the FASB issued FSP No. 157-3, Determining the Fair Value of a Financial Asset When the Market for That Asset is Not Active, or FSP 157-3. FSP 157-3 clarifies the application of SFAS 157 in a market that is not active and provides an example to illustrate key considerations in determining the fair value of a financial asset when the market for that financial asset is not active. FSP 157-3 was effective upon issuance, including prior periods for which financial statements have not been issued.

We adopted SFAS No. 157 for financial assets and liabilities carried at fair value on a recurring basis on September 1, 2008 (Note 14). We are currently unable to determine the impact on our financial statements of the application of SFAS No. 157 on September 1, 2009, for non-recurring non-financial assets and liabilities that are recognized or

disclosed at fair value.

FORWARD-LOOKING STATEMENTS

With the exception of historical facts, the statements contained in "Management's Discussion and Analysis of Financial Condition and Results of Operations" and other parts of this annual report on Form 10-K are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, which reflect our current expectations and beliefs regarding our future results of operations, performance and achievements. These statements are subject to risks and uncertainties and are based upon assumptions and beliefs that may or may not materialize. These forward-looking statements include, but are not limited to, statements concerning:

- our belief about the market opportunities for our products;
- our anticipated financial performance and business plan;
- our expectations regarding the commercialization of, and the potential revenue from, the BSD-2000, BSD 500 and MTX-180 systems;
- our belief that we do not depend on a single supplier for any item and that we can acquire material and parts from multiple sources on a timely basis;
- our expectations to further expand our developments to treat other forms of cancer and other diseases and medical conditions;
- our expectations that the patented phased array technology for which we obtained a sub-license from Duke University will enhance future developments of our current phased array hyperthermia systems;
- our belief that the implementation of recent accounting pronouncements will not have a material impact on our financial statements;
- our belief that expanding our business into international markets represents a significant business opportunity;
- our expectations that our international sales of the MTX-180 will be conducted through established and new distributors located primarily in Europe and Asia;
- our expectations that our interest and investment income for the foreseeable future will be substantially less than previously earned on our mutual funds.
- our expectations that we will continue to incur expenses related to seeking governmental and regulatory approvals for our products;

- our belief that postponing market entry of the MTX-180 until completion of the phase II design will allow us to enter the market with an optimized system that will have a wider range of applications and increased revenue streams;

- our belief that the MTX-180 has the potential to be the market leader in microwave ablation and will be a major part of our business plan moving forward;

- our expectations that the MTX-180 will be ready to market in 2010;

- our expectations that the disposable applicator to be used in conjunction with the MTX-180 represents a significant ongoing revenue stream;

- our expectations regarding FDA approvals relating to the BSD-2000 system;

- our belief that as sales volume increases we will increase our gross profits percentage by more fully absorbing certain fixed operating costs that are included in our cost of sales;

- our intentions to continue to devote substantial sums to research and development;
- our expectations related to the amount of expenses we will incur for the commercial introduction of our systems;

- our expectations that we will continue to incur expenses related to our corporate governance and compliance with the Sarbanes-Oxley Act of 2002; and

- our belief that our current working capital, cash and cash equivalents, income tax receivable, and cash from operations will be sufficient to finance our operations through working capital and capital resources needs for the next twelve months.

We wish to caution readers that the forward-looking statements and our operating results are subject to various risks and uncertainties that could cause our actual results and outcomes to differ materially from those discussed or anticipated, including the factors set forth in Item 1A – “Risk Factors” in this Annual Report and our other filings with the Securities and Exchange Commission. We also wish to advise readers not to place any undue reliance on the forward-looking statements contained in this report, which reflect our beliefs and expectations only as of the date of this report. We assume no obligation to update or revise these forward-looking statements to reflect new events or circumstances or any changes in our beliefs or expectations, other than as required by law.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our cash and cash equivalents consist primarily of money market funds, which are investment grade securities. The money market funds bear variable interest rates that are adjusted to market conditions and changes in financial market conditions and in market rates will affect interest income earned on these funds. We do not believe, however, that the interest income earned on our money market funds is material to the results of our operations. Further, we do not believe that we are currently exposed to changes in financial market conditions that expose our money market funds to material changes in the market value of their principal.

We do have significant sales to foreign customers and are therefore subject to the effects changes in foreign currency exchange rates may have on demand for our products and services. We currently do not utilize derivative instruments

to offset the exposure to changes in foreign currency exchange rates. To minimize foreign exchange risk, our export sales are transacted in United States dollars.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The Financial Statements of the Company called for by this item are contained in a separate section of this report. See “Index to Financial Statements” on Page F-1.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURES

None.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

We maintain disclosure controls and procedures designed to provide reasonable assurance that information required to be disclosed in reports filed under the Securities Exchange Act of 1934 (the “Act”) is recorded, processed, summarized and reported within the specified time periods and accumulated and communicated to management, including our Chief Executive Officer (Principal Executive Officer) and Chief Financial Officer (Principal Accounting Officer), as appropriate, to allow timely decisions regarding required disclosure.

Management, under the supervision and with the participation of our Chief Executive Officer (Principal Executive Officer) and Chief Financial Officer (Principal Accounting Officer), evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) or 15d-15(e) promulgated under the Act), as of August 31, 2009. Based on that evaluation, management concluded that our disclosure controls and procedures were effective as of August 31, 2009.

Attached as exhibits to this Annual Report on Form 10-K are certifications of our Chief Executive Officer (Principal Executive Officer) and Chief Financial Officer (Principal Accounting Officer), which are required in accordance with Rule 13a-14 of the Act. This Disclosure Controls and Procedures section includes information concerning management’s evaluation of disclosure controls and procedures referred to in those certifications and, as such, should be read in conjunction with the certifications of our Chief Executive Officer (Principal Executive Officer) and Chief Financial Officer (Principal Accounting Officer).

Management’s Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting of the Company. Management’s intent is to design this system 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 principles in the United States of America.

Our internal control over financial reporting includes those policies and procedures that:

1. pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company;

2. provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and

3. 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.

A material weakness is a significant deficiency, or combination of significant deficiencies, in internal controls over financial reporting such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. Management performed an assessment of the effectiveness of the Company's internal control over financial reporting as of August 31, 2009, utilizing the criteria described in the "Internal Control — Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). The objective of this assessment was to determine whether our internal control over financial reporting was effective as of such date. In its assessment of the effectiveness of internal control over financial reporting as of August 31, 2009, management concluded that our internal control over financial reporting is effective.

Management's assessment of the effectiveness of our internal control over financial reporting has been audited by Tanner LC, an independent registered public accounting firm, as stated in their report which is included herein.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting (as such item is defined in Rule 13 a-15(f) under the Act) that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on the Effectiveness of Controls

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls or our internal controls will prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. 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, within the Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Controls can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with associated policies or procedures. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information required by this item is incorporated by reference from the information in the Company's definitive Proxy Statement to be filed for the 2010 Annual Meeting of Stockholders.

ITEM 11. EXECUTIVE COMPENSATION

Information required by this item is incorporated by reference from the information in the Company's definitive Proxy Statement to be filed for the 2010 Annual Meeting of Stockholders.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information required by this item is incorporated by reference from the information in the Company's definitive Proxy Statement to be filed for the 2010 Annual Meeting of Stockholders.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item is incorporated by reference from the information in the Company's definitive Proxy Statement to be filed for the 2010 Annual Meeting of Stockholders.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information required by this item is incorporated by reference from the information in the Company's definitive Proxy Statement to be filed for the 2010 Annual Meeting of Stockholders.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a)(1) Financial Statements

The Index to Financial Statements on page F-1 is incorporated herein by reference as the list of financial statements required as part of this report.

(2) Financial Statement Schedules

Financial statement schedules have been omitted because they are not required or are not applicable, or because the required information is shown in the financial statements or notes thereto.

(3) Exhibits

The following exhibits are incorporated herein by reference as indicated:

Exhibit Number	Description
3.1	Amended and Restated Certificate of Incorporation. Incorporated by reference to Exhibit 3.1 of the BSD Medical Corporation Annual Report Form 10-KSB, filed December 1, 2003.
3.2	By-Laws. Incorporated by reference to Exhibit 3.2 of the BSD Medical Corporation Registration Statement on Form S-1, filed October 16, 1986.
3.3	Amendment to Bylaws. Incorporated by reference to Exhibit 3.1 of Current Report on Form 8-K filed January 4, 2008.
4.1	Specimen Common Stock Certificate. Incorporated by reference to Exhibit 4 of the BSD Medical Corporation Registration Statement on Form S-1, filed October 16, 1986.
4.2	Emerson Securities Purchase Agreement. Incorporated by reference to Exhibit 4.1 of the BSD Medical Corporation Annual Report on Form 10-KSB, filed December 1, 2003.
10.1	Transfer of Trade Secrets Agreement dated December 7, 1979, among BSD Medical Corporation, Vitek, Incorporated and Ronald R. Bowman. Incorporated by reference to Exhibit 10.6 of the BSD Medical Corporation Registration Statement on Form S-1, filed October 16, 1986.
10.2	Second Addendum to Exclusive Transfer of Trade Secrets Agreement dated April 2, 1987. Incorporated by reference to Exhibit 10 of the BSD Medical Corporation Annual Report on Form 10-K, filed April 8, 1988.
10.3	License Agreement between BSD Medical Corporation and EDAP Technomed, Inc., dated July 3, 1996. Incorporated by reference to Exhibit 10 of Current Report on Form 8-K, filed August 7, 1996.
10.4	Stock Purchase Agreement dated October 31, 1997, by and among TherMatrx, Inc., BSD Medical Corporation, Oracle Strategic Partners, L.P. and Charles Manker. Incorporated by reference to Exhibit 10.6 of the BSD Medical Corporation Annual Report on Form 10-KSB filed December 10, 1998.
10.5*	BSD Medical Corporation 1998 Director Stock Plan. Incorporated by reference to Exhibit A of the BSD Medical Corporation Schedule 14A, filed July 27, 1998.
10.6*	BSD Medical Corporation 1998 Stock Incentive Plan. Incorporated by reference to Exhibit B of the BSD Medical Corporation Schedule 14B, filed July 27, 1998.
10.7*	BSD Medical Corporation Form of Employee Stock Option Grant
10.8*	BSD Medical Corporation Form of Director Stock Option Grant
10.9*	Employment Agreement dated August 10, 1999 between BSD Medical Corporation and Hyrum A. Mead. Incorporated by reference to Exhibit 10.7 to BSD Medical Corporation's Registration Statement on Form SB-2 filed January 27, 2004.

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10.10*	Employment Agreement dated November 2, 2008 between BSD Medical Corporation and Paul F. Turner. Incorporated by reference to Exhibit 10.8 to BSD Medical Corporation's Registration Statement on Form SB-2 filed January 27, 2004.
10.11	Exclusive Distribution Agreement with Sennewald/Medizin-Technik GmbH dated May 13, 2009
10.12*	Separation Agreement, dated April 7, 2009, between BSD Medical Corporation and Hyrum A. Mead. Incorporated by reference to Exhibit 10.1 of Current Report on Form 8-K filed on April 8, 2009
10.13*	Offer Letter, dated April 7, 2009, between BSD Medical Corporation and Harold R. Wolcott. Incorporated by reference to Exhibit 10.2 of Current Report on Form 8-K filed on April 8, 2009
21.1	Subsidiary List. Incorporated by reference to Exhibit 21.1 of the BSD Medical Corporation Annual Report on Form 10-KSB filed December 1, 2003.
23.1	Consent of Independent Registered Public Accounting Firm
31.1	Certification of Chief Executive Officer of BSD pursuant to Rule 13a-14.
31.2	Certification of Chief Financial Officer of BSD pursuant to Rule 13a-14.
32.1	Certification of Chief Executive Officer attached pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes Oxley Act of 2002.
32.2	Certification of the Chief Financial Officer of BSD pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

* Exhibits marked with an asterisk (*) are management contracts or compensatory plans or arrangements.

SIGNATURES

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

BSD MEDICAL CORPORATION

Date: November 6, 2009

By: /s/ Harold R. Wolcott
Harold R. Wolcott
President and Member of the Board of Directors
(principal executive officer)

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

Date: November 6, 2009

By: /s/ Harold R. Wolcott
Harold R. Wolcott
President and Member of the Board of Directors (principal executive officer)

Date: November 6, 2009

By: /s/ Dennis P. Gauger
Dennis P. Gauger
Chief Financial Officer (principal financial and accounting officer)

Date: November 6, 2009

By: /s/ Timothy C. McQuay
Timothy C. McQuay
Chairman of the Board of Directors

Date: November 6, 2009

By: /s/ Paul F. Turner
Paul F. Turner
Senior Vice President and Chief Technology Officer and Member of the Board of Directors

Date: November 6, 2009

By: /s/ Gerhard W. Sennewald
Dr. Gerhard W. Sennewald
Member of the Board of Directors

Date: November 6, 2009

By: /s/ Steven G. Stewart
Steven G. Stewart
Member of the Board of Directors

Date: November 6, 2009

By: /s/ Michael Nobel
Dr. Michael Nobel
Member of the Board of Directors

Date: November 6, 2009

By: /s/ Douglas P. Boyd
Dr. Douglas P. Boyd
Member of the Board of Directors

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BSD MEDICAL CORPORATION
Index to Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM ON INTERNAL CONTROL OVER FINANCIAL REPORTING

To the Board of Directors and Stockholders
of BSD Medical Corporation

We have audited the internal control of BSD Medical Corporation (the Company) over financial reporting as of August 31, 2009 and 2008, based on criteria established in Internal Control--Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

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 effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 directors of the Company; and (3) 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.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of August 31, 2009 and 2008, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the balance sheets of the Company as of August 31, 2009 and 2008, and the related statements of operations, stockholders' equity, and cash flows for each of the years in the three-year period ended August 31, 2009, and our report dated November 6, 2009 expressed an unqualified opinion thereon.

/s/ TANNER LC

Salt Lake City, Utah

November 6, 2009

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders
of BSD Medical Corporation

We have audited the accompanying balance sheets of BSD Medical Corporation as of August 31, 2009 and 2008, and the related statements of operations, stockholders' equity and cash flows for each of the years in the three-year period ended August 31, 2009. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these 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 audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes 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 financial statements referred to above present fairly, in all material respects, the financial position of BSD Medical Corporation as of August 31, 2009 and 2008, and the results of its operations and its cash flows for each of the years in the three-year period ended August 31, 2009, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of BSD Medical Corporation's internal control over financial reporting as of August 31, 2009, based on criteria established in Internal Control–Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated November 6, 2009 expressed an unqualified opinion thereon.

/s/ TANNER LC

Salt Lake City, Utah
November 6, 2009

BSD MEDICAL CORPORATION
Balance Sheets

ASSETS	August 31, 2009	2008
Current assets:		
Cash and cash equivalents	$7,791,938	$1,394,652
Investments	-	14,487,192
Accounts receivable, net of allowance for doubtful accounts of $20,000	289,617	439,739
Related party trade accounts receivable	41,016	737,483
Income tax receivable	1,415,758	1,409,996
Inventories, net	1,794,476	1,425,153
Other current assets	94,536	113,829
Total current assets	11,427,341	20,008,044
Property and equipment, net	1,352,384	1,441,524
Patents, net	77,633	37,330
	$12,857,358	$21,486,898
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$226,905	$221,605
Accrued liabilities	548,079	585,777
Customer deposits	-	427,677
Deferred revenue – current portion	67,851	41,885
Total current liabilities	842,835	1,276,944
Deferred revenue – net of current portion	73,534	54,094
Total liabilities	916,369	1,331,038
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, $.001 par value; 10,000,000 shares authorized, no shares issued and outstanding	-	-
Common stock; $.001 par value, 40,000,000 shares authorized, 22,039,301 and 21,388,958 shares issued, respectively	22,040	21,389
Additional paid-in capital	28,593,305	27,565,373
Treasury stock, 24,331 shares at cost	(234)	(234)
Other comprehensive loss	-	(2,141,416)
Accumulated deficit	(16,674,122)	(5,289,252)
Total stockholders' equity	11,940,989	20,155,860
	$12,857,358	$21,486,898

See accompanying notes to financial statements

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BSD MEDICAL CORPORATION
Statements of Operations

	Years Ended August 31,		
	2009	2008	2007
Revenues:			
Sales	$ 2,933,487	$ 2,334,008	$ 1,449,054
Sales to related parties	603,000	2,809,132	1,385,332
Total revenues	3,536,487	5,143,140	2,834,386
Operating costs and expenses:			
Cost of sales	1,553,197	956,220	766,040
Cost of related party sales	369,021	1,128,029	815,522
Research and development	2,043,268	1,737,924	1,875,147
Selling, general and administrative	6,097,494	5,573,311	5,762,217
Total operating costs and expenses	10,062,980	9,395,484	9,218,926
Loss from operations	(6,526,493)	(4,252,344)	(6,384,540)
Other income (expense):			
Interest and investment income	584,523	1,046,313	1,133,125
Other expense	(91,314)	(194,068)	(164,003)
Realized loss on investments	(6,501,586)	-	-
Gain on sale of equity interest	-	-	202,223
Total other income (expense)	(6,008,377)	852,245	1,171,345
Loss before income taxes	(12,534,870)	(3,400,099)	(5,213,195)
Income tax benefit	1,150,000	961,000	1,865,000
Net loss	$ (11,384,870)	$ (2,439,099)	$ (3,348,195)
Loss per common share:			
Basic	$ (0.52)	$ (0.11)	$ (0.16)
Diluted	$ (0.52)	$ (0.11)	$ (0.16)
Weighted average number of shares outstanding:			
Basic	21,887,000	21,339,000	21,125,000
Diluted	21,887,000	21,339,000	21,125,000

See accompanying notes to financial statements

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BSD MEDICAL CORPORATION
Statements of Stockholders' Equity
Years Ended August 31, 2009, 2008 and 2007

	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Deferred Compensation	Treasury Stock Shares	Treasury Stock Amount	Other Comprehensive Income (Loss)	Retained Earnings (Accumulated Deficit)	Total
Balance, September 1, 2006	21,023,668	$21,024	$25,452,231	$(247,700)	24,331	$(234)	$(99,362)	$498,042	$25,624,001
Comprehensive loss:									
Net loss	-	-	-	-	-	-	-	(3,348,195)	(3,348,195)
Unrealized loss on investments, net of income tax benefit	-	-	-	-	-	-	(261,398)	-	(261,398)
Total comprehensive loss									(3,609,593)
Close out deferred compensation	-	-	(247,700)	247,700	-	-	-	-	-
Common stock issued for:									
Cash	195,933	196	229,511	-	-	-	-	-	229,707
Services	10,288	10	59,990	-	-	-	-	-	60,000
Cashless option exercises	67,557	68	(68)	-	-	-	-	-	-
Stock-based compensation	-	-	832,224	-	-	-	-	-	832,224
Income tax benefit from exercise of stock options	-	-	47,449	-	-	-	-	-	47,449
Balance, August 31, 2007	21,297,446	21,298	26,373,637	-	24,331	(234)	(360,760)	(2,850,153)	23,183,788
Comprehensive loss:									
Net loss	-	-	-	-	-	-	-	(2,439,099)	(2,439,099)
Unrealized loss on investments, net of income tax benefit	-	-	-	-	-	-	(1,780,656)	-	(1,780,656)

Total comprehensive loss									(4,219,755)
Common stock issued for:									
Cash	56,499	56	158,426	-	-	-	-	-	158,482
Services	10,514	11	61,184	-	-	-	-	-	61,195
Cashless option exercises	24,499	24	(24)	-	-	-	-	-	-
Stock-based compensation	-	-	800,432	-	-	-	-	-	800,432
Income tax benefit from exercise of stock options	-	-	171,718	-	-	-	-	-	171,718
Balance, August 31, 2008	21,388,958	21,389	27,565,373	-	24,331	(234)	(2,141,416)	(5,289,252)	20,155,860
Comprehensive loss:									
Net loss	-	-	-	-	-	-	-	(11,384,870)	(11,384,870)
Unrealized loss on investments, net of income tax benefit	-	-	-	-	-	-	2,141,416	-	2,141,416
Total comprehensive loss									(9,243,454)
Common stock issued for:									
Services	32,915	33	105,147	-	-	-	-	-	105,180
Cashless option exercises	617,428	618	(618)	-	-	-	-	-	-
Stock-based compensation	-	-	1,117,839	-	-	-	-	-	1,117,839
Income tax provision from exercise of stock options	-	-	(194,436)	-	-	-	-	-	(194,436)
Balance, August 31, 2009	22,039,301	$22,040	$28,593,305	$-	24,331	$(234)	$-	$(16,674,122)	$11,940,989

See accompanying notes to financial statements

BSD MEDICAL CORPORATION
Statements of Cash Flows

	Years Ended August 31,		
	2009	2008	2007
Cash flows from operating activities:			
Net loss	$ (11,384,870)	$ (2,439,099)	$ (3,348,195)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	134,759	120,216	97,849
Stock issued for services	105,180	61,195	60,000
Stock-based compensation	1,117,839	800,432	832,224
Realized loss on investments	6,501,586	-	-
Loss on disposition of property	-	3,444	2,597
Gain on sale of equity interest	-	-	(202,223)
Decrease (increase) in:			
Receivables	846,589	(485,755)	894,376
Income tax receivable	(200,198)	521,717	(1,752,492)
Inventories	(369,323)	84,914	(143,803)
Deferred tax asset	-	244,000	(66,000)
Other current assets	19,293	13,174	(6,726)
Increase (decrease) in:			
Accounts payable	5,300	(14,071)	(129,720)
Accrued liabilities	(37,698)	(47,313)	187,977
Customer deposits	(427,677)	213,039	114,638
Income taxes payable	-	-	(1,500,000)
Deferred revenue	45,406	-	(160,964)
Deferred tax liability	-	21,531	-
Net cash used in operating activities	(3,643,814)	(902,576)	(5,120,462)
Cash flows from investing activities:			
Sales of investments	10,150,957	4,988,760	10,207,840
Purchases of investments	(23,935)	(1,954,490)	(7,215,250)
Purchase of property and equipment	(36,478)	(1,291,098)	(66,612)
Purchase of patents	(49,444)	(20,966)	-
Proceeds from sale of equity interest	-	-	202,223
Net cash provided by investing activities	10,041,100	1,722,206	3,128,201
Cash flows from financing activities:			
Proceeds from the sale of common stock	-	158,482	229,707
Net increase (decrease) in cash and cash equivalents	6,397,286	978,112	(1,762,554)
Cash and cash equivalents, beginning of year	1,394,652	416,540	2,179,094

Cash and cash equivalents, end of year	$ 7,791,938	$ 1,394,652	$ 416,540

See accompanying notes to financial statements

BSD MEDICAL CORPORATION
Notes to Financial Statements

Note 1: Organization and Significant Accounting Policies

Organization and Business – BSD Medical Corporation (the Company) was incorporated in the State of Delaware on July 3, 1986. We develop, manufacture, market, and service medical systems that deliver precision-focused radio frequency (RF) or microwave energy into diseased sites of the body, heating them to specified temperatures as required by a variety of medical therapies. Our business objectives are to commercialize our products developed for the treatment of cancer and to further expand our systems to treat other diseases and medical conditions. Our product line for cancer therapy has been created to offer hospitals and clinics a complete solution for thermal treatment of cancer as provided through microwave/RF systems. Our microwave ablation system is to be used to ablate (remove or vaporize) soft tissue with heat alone. Thermal ablation is used to destroy local tumors using a short intense focus of heat on a specific area, which is usually small, similar to surgical removal of the tumor.

Cash and Cash Equivalents – Cash and cash equivalents consist of cash and investments with original maturities to the Company of three months or less.

Investments – Investments with scheduled maturities greater than three months, but not greater than one year, are recorded as short-term investments. As of August 31, 2009, we had no investments. As of August 31, 2008, our investments consisted primarily of a highly liquid, managed portfolio of mutual funds, and were all considered available-for-sale securities. The investments were carried at fair value based on quoted market prices, with net unrealized gains and losses reported as other comprehensive income (loss) in stockholders' equity in our balance sheets. Realized gains and losses are included in our statements of operations. The mutual funds were comprised of two categories: corporate debt funds and equity income funds.

Accounts Receivable – Trade accounts receivable are carried at original invoice amount less an estimate made for doubtful receivables based on a review of all outstanding amounts on a monthly basis. Management estimates an allowance for doubtful accounts by identifying troubled accounts and by using historical experience applied to an aging of accounts. Trade accounts receivable are written off when deemed uncollectible. Recoveries of trade receivables previously written off are recorded when received. Interest is not charged on trade receivables that are outstanding beyond their due date.

Inventories – Parts and supplies inventories are stated at the lower of cost or market. Cost is determined using the average cost method. Work-in-process and finished goods are stated at the lower of the accumulated manufacturing costs or market. Provisions, when required, are made to reduce excess and obsolete inventories to their estimated net realizable value. The provision was $60,000 at August 31, 2009 and $40,000 at August 31, 2008.

Property and Equipment – Property and equipment are stated at cost less accumulated depreciation. Depreciation is determined using the straight-line method over the following estimated useful lives of the assets.

Equipment	2 – 5 years
Furniture and fixtures	5 years
Building improvements	15 years
Building	40 years

Expenditures for maintenance and repairs are expensed when incurred and betterments are capitalized. Gains and losses on sales of property and equipment are reflected in operations.

The cost and accumulated depreciation of property and equipment sold or otherwise retired are removed from the accounts and any related gain or loss on disposition is reflected in net income or loss for the period.

Patents – Patents are carried at cost and are being amortized over their remaining legal life, up to a period of 17 years.

Warranty Reserve – We provide limited warranties to our customers for products sold. Estimated future warranty obligations are accrued each period. As of August 31, 2009 and 2008, the accrued warranty reserve was $39,219 and $22,640, respectively. During the fiscal years ended August 31, 2009, 2008, and 2007, total warranty expense was $58,002, $68,470 and $38,519, respectively.

Income Taxes – We account for income taxes using the asset and liability method. Under the asset and liability method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

Income (Loss) Per Common Share – The computation of basic income (loss) per common share is based on the weighted average number of shares outstanding during each year.

The computation of diluted earnings per common share is based on the weighted average number of shares outstanding during the year, plus the common stock equivalents that would arise from the exercise of stock options and warrants outstanding, using the treasury stock method and the average market price per share during the year. Common stock equivalents are not included in the diluted loss per share calculation when their effect is anti-dilutive. Options to purchase 2,379,087, 2,182,629 and 1,795,853 shares of common stock at prices ranging from $0.56 to $7.95, $0.37 to $6.50, and $0.37 to $5.76 per share were outstanding at August 31, 2009, 2008 and 2007, respectively.

The shares used in the computation of the basic and diluted earnings per share are reconciled as follows:

	Years Ended August 31,		
	2009	2008	2007
Weighted average number of shares outstanding – basic	21,887,000	21,339,000	21,125,000
Dilutive effect of stock options	-	-	-
Weighted average number of shares outstanding, assuming dilution	21,887,000	21,339,000	21,125,000

Stock-Based Compensation - We account for stock-based compensation in accordance with SFAS No. 123(R), Share Based Payments. Under the fair value recognition provisions of this statement, stock-based compensation cost is measured at the grant date based on the value of the award granted using the Black-Scholes option pricing model, and recognized over the period in which the award vests. We allocate the stock-based compensation expense to the various categories of operating costs and expenses in a manner similar to the allocation of payroll expense.

Revenue Recognition – We recognize revenue from the sale of medical systems, the sale of parts and accessories related to the systems, providing training, and service support contracts. Product sales were $3,293,116, $4,841,713 and $2,520,818 for the years ended August 31, 2009, 2008 and 2007, respectively. Service and other revenues were $243,371, $301,427 and $313,568 for the years ended August 31, 2009, 2008 and 2007, respectively.

Revenue from the sale of medical systems is recognized when a purchase order has been received, the system has been shipped, the selling price is fixed or determinable, and collection is reasonably assured. Most system sales are F.O.B. shipping point, therefore shipment is deemed to have occurred when the product is delivered to the transportation carrier. Most system sales do not include installation. If installation is included as part of the contract, revenue is not recognized until installation has occurred, or until any remaining installation obligation is deemed to be perfunctory. Some sales of medical systems may include training as part of the sale. In such cases, the portion of the revenue related to the training, calculated based on the amount charged for training on a stand-alone basis, is deferred and recognized when the training has been provided. The sales of our medical systems do not require specific customer acceptance provisions and do not include the right of return except in cases where the product does not function as guaranteed by us. We provide a reserve allowance for estimated returns. To date, returns have not been significant.

Revenue from training services is recorded when an agreement with the customer exists for such training, the training services have been provided, and collection is reasonably assured.

Revenue from service support contracts is recognized on a straight-line basis over the term of the contract, which approximates recognizing it as it is earned.

Our revenue recognition policy is the same for sales to both related parties and non-related parties. We provide the same products and services under the same terms for non-related parties as with related parties.

Sales to distributors are recognized in the same manner as sales to end-user customers.

Deferred revenue and customer deposits payable include amounts from service contracts as well as cash received for the sales of products, which have not been shipped.

Concentration of Credit Risk – Financial instruments that potentially subject us to concentration of credit risk consists primarily of trade receivables. In the normal course of business, we provide credit terms to our customers. Accordingly, we perform ongoing credit evaluations of our customers and maintain allowances for possible losses.

We have cash in the bank and short-term investments that exceed federally insured limits. We have not experienced any losses in such accounts.

Advertising and Promotion – Advertising and promotion costs, which are principally included in sales expenses, are expensed as incurred. Advertising and promotion expense was approximately $86,000, $206,000 and $331,000 for the years ended August 31, 2009, 2008 and 2007, respectively.

Use of Estimates in the Preparation of Financial Statements – The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Comprehensive Income (Loss) – Comprehensive income (loss) consists of net income (loss) and the net change in other comprehensive income (loss) resulting from net unrealized gains and losses on our investments, which is reported on the accompanying statements of stockholders' equity.

Reclassifications – Certain amounts in the prior years have been reclassified to conform with the current year presentation.

Note 2: Detail of Certain Balance Sheet Accounts

Details of certain balance sheet accounts are as follows:

Accounts receivable:	August 31, 2009	2008
Trade receivables – non-related party	$ 307,194	$ 407,528
Other receivables	1,101	8,305
Accrued interest receivable	1,322	43,906
Allowance for doubtful accounts	(20,000)	(20,000)
	$ 289,617	$ 439,739

Inventories:	August 31, 2009	2008
Parts and supplies	$ 1,041,355	$ 802,956
Work-in-process	555,584	608,391
Finished goods	257,537	53,806
Reserve for obsolete inventory	(60,000)	(40,000)
	$ 1,794,476	$ 1,425,153

Accrued liabilities:	August 31, 2009	2008
Accrued vacation	$ 221,464	$ 301,413
Accrued taxes payable	59,177	14,994
Accrued bonuses	-	161,000
Other accrued liabilities	267,438	108,370
	$ 548,079	$ 585,777

Note 3: Investments

Investments with scheduled maturities greater than three months, but not greater than one year, are recorded as short-term investments. As of August 31, 2009, we had no investments, but had cash and cash equivalents of $7,791,938, comprised primarily of money market funds. As of August 31, 2008, our investments consisted primarily of a highly liquid, managed portfolio of mutual funds, and were all considered available-for-sale securities. The mutual funds were comprised of two categories: corporate debt funds and equity income funds.

The amortized cost, gross unrealized gains and losses, and fair value of our investments by major security type were as follows as of August 31, 2008:

Type of Security	Amortized Cost	Gross Unrealized Gains	Gross Unrealized (Losses)	Fair Value
Corporate debt funds	$ 11,518,134	$ -	$ (1,158,692)	$ 10,359,442
Equity income funds	5,031,467	-	(982,724)	4,048,743
Other short-term interest-bearing securities	79,007	-	-	79,007
Total	$ 16,628,608	$ -	$ (2,141,416)	$ 14,487,192

The other short-term interest-bearing securities as of August 31, 2008 were comprised primarily of money market funds.

Investments in an unrealized loss position at August 31, 2008, by duration of the period of the unrealized losses, are shown below:

	Less Than 12 Months		12 Months of More		Total	
Type of Security	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
Corporate debt funds	$ -	$ -	$ 10,359,442	$ (1,158,692)	$ 10,359,442	$ (1,158,692)
Equity income funds	-	-	4,048,743	(982,724)	4,048,743	(982,724)
Total	$ -	$ -	$ 14,408,185	$ (2,141,416)	$ 14,408,185	$ (2,141,416)

Effective September 1, 2008, we adopted Statement of Financial Accounting Standards (“SFAS”) No. 157, Fair Value Measurements. SFAS No. 157 defines fair value, establishes a framework for measuring fair value, and requires enhanced disclosures about fair value measurements. SFAS No. 157 requires companies to disclose the fair value of their financial instruments according to a fair value hierarchy as defined in the standard. Additionally, companies are required to provide enhanced disclosure regarding financial instruments in one of the categories, including a reconciliation of the beginning and ending balances separately for each major category of assets and liabilities. In February 2008, the FASB issued FASB Staff Position (“FSP”) No. FAS 157-2, which delays by one year the effective date of SFAS No. 157 for certain types of non-financial assets and non-financial liabilities, or our fiscal year beginning September 1, 2009.

SFAS No. 157 provides a hierarchy that prioritizes inputs to valuation techniques used to measure fair value into three broad levels. Level 1 inputs are quoted market prices in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date. Level 2 inputs are inputs, other than quoted market prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. Level 3 inputs are unobservable inputs for the asset or liability.

We continually review our investments to determine whether a decline in fair value below the cost basis is other than temporary. We consider several factors, evaluated both individually and collectively, with the evaluation involving a high level of complexity and judgment. The following factors, among others, are considered: general market conditions; the length of time and extent to which our investments' market value has been less than cost; the level of income that we continue to receive from our mutual funds, noting whether our dividends have been reduced or eliminated or any scheduled dividend payments have not been made; the recommendation of our investment advisor; sales of investments or our decision to sell investments subsequent to a reporting period; for our corporate debt funds, our analysis and conclusion that the decline in value is not attributable to specific conditions in any one industry or geographic area; and for our corporate debt funds, our analysis and conclusion that the default rate within the individual funds continues to be low and that no significant concentrations of debt is scheduled to mature in the next two years.

After considering the factors outlined above, we liquidated 100% of our mutual funds in March and May 2009 and recognized a loss on investments in the statements of operations of $6,501,586 for the year ended August 31, 2009. The cost basis of these investments was $16,652,543, determined on a specific identification basis. Proceeds of $10,150,957 from these sales of investments were deposited in money market funds.

Note 4: Property and Equipment

Property and equipment consists of the following:

	August 31, 2009	2008
Equipment	$ 1,074,364	$ 1,048,061
Furniture and fixtures	298,576	298,576
Leasehold improvements	24,220	17,420
Building	956,000	956,000
Land	244,000	244,000
	2,597,160	2,564,057
Less accumulated depreciation	(1,244,776)	(1,122,533)
	$ 1,352,384	$ 1,441,524

Depreciation expense for the years ended August 31, 2009, 2008 and 2007 totaled $125,618, $117,207 and $95,971, respectively.

Note 5: Patents

We have four patents recorded net of accumulated amortization. The patents are being amortized on a straight-line basis over their remaining legal life, up to a period of 17 years. Amortization expense was $9,141, $3,009 and $1,878 for the years ended August 31, 2009, 2008, and 2007, respectively. Amortization expense relating to the patents for the next five years is expected to be as follows:

Year ending August 31,	
2010	$ 21,879
2011	21,879
2012	21,879
2013	1,813
2014	1,408
	$ 68,858

Note 6: Operating Lease

When the lease on our office, production and research facilities expired in November 2007, we exercised our option to purchase the building and land for a total purchase price of $1,200,000.

Prior to the exercise of the purchase option, rent expense on this operating lease for the years ended August 31, 2008 and 2007 amounted to $20,699 and $93,032, respectively.

Note 7: Deferred Revenue

We have entered into certain service contracts for which we have received payment in advance. We are recognizing these service revenues over the life of the service agreements.

As of August 31, 2009 and 2008, we had $141,385 and $95,979 of deferred revenue, respectively.

Note 8: Major Customers and Foreign Sales

We had the following customer revenue concentrations:

	Years Ended August 31,		
	2009	2008	2007
Customer A	17.05%	54.62%	48.88%
Customer B	16.40%	*	*
Customer C	13.73%	*	*
Customer D	10.18%	*	*

*Sales to customers were less than 10%.

Export sales were $1,668,547, $2,812,796 and $1,787,363 in fiscal years 2009, 2008 and 2007, respectively.

During fiscal year 2009, export sales to China, Switzerland and Poland were approximately 16%, 13% and 14% of total sales, respectively. During fiscal years 2008 and 2007, export sales to Switzerland were approximately 53% and 44% of total sales, respectively.

Note 9: Income Taxes

The components of the income tax (provision) benefit are as follows:

	Years Ended August 31,		
	2009	2008	2007
Current:			
Federal	$ 1,346,000	$ 1,088,000	$ 1,653,000
State	33,000	41,000	146,000
	1,379,000	1,129,000	1,799,000
Deferred:			

Federal	(229,000)	(168,000)	66,000
	$ 1,150,000	$ 961,000	$ 1,865,000

The income tax (provision) benefit differs from the amount computed at federal statutory rates as follows:

	Years Ended August 31,		
	2009	2008	2007
Income tax (provision) benefit at federal statutory rate	$ 4,262,000	$ 1,156,000	$ 1,772,000
Stock-based compensation	(252,000)	(176,000)	(233,000)
State income taxes, net of federal benefit	447,000	288,000	96,000
Research and development credit	309,000	160,000	160,000
Valuation allowance	(3,809,000)	(518,000)	-
Other	193,000	51,000	70,000
	$ 1,150,000	$ 961,000	$ 1,865,000

Deferred tax assets (liabilities) are comprised of the following:

	August 31,	
	2009	2008
Current Asset:		
Accruals and reserves	$ 130,000	$ 145,000
Deferred revenue	52,000	36,000
Inventories	21,000	15,000
Investment and other tax credits	1,390,000	-
Net operating loss carryforward	1,672,000	-
State net operating loss carryforward	761,000	252,000
Unrealized loss on investments	-	792,000
Valuation allowance	(4,026,000)	(1,240,000)
	$ -	$ -
Long-Term Asset:		
Deferred compensation	$ 282,000	$ 120,000
Depreciation and amortization	20,000	(50,000)
Valuation allowance	(302,000)	(70,000)
	$ -	$ -

At August 31, 2009, we had a net operating loss carryforward available to offset future taxable income of approximately $4,500,000, which will begin to expire in 2029. If substantial changes in the Company's ownership should occur, there would be an annual limitation of the amount of the net operating loss carryforward which could be utilized.

The Financial Accounting Standards Board (FASB) has issued Financial Interpretation No. 48, Accounting for Uncertainty in Income Taxes – An Interpretation of FASB Statement No. 109 (FIN 48). FIN 48 clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with FASB Statement No. 109, Accounting for Income Taxes. FIN 48 requires a company to determine whether it is more likely than not that a tax position will be sustained upon examination based upon the technical merits of the position. If the more-likely-than-not threshold is met, a company must measure the tax position to determine the amount to recognize in the financial statements.

We perform a review of our material tax positions in accordance with recognition and measurement standards established by FIN 48. Upon adoption of FIN 48 on September 1, 2007, we had no unrecognized tax benefit which would affect the effective tax rate if recognized. There has been no significant change in the unrecognized tax benefit during the years ended August 31, 2009 and 2008.

We classify interest and penalties arising from the underpayment of income taxes in our statements of operations in other income (expense). As of August 31, 2009 and 2008, we had no accrued interest or penalties related to uncertain tax positions.

We file income tax returns in the U.S. federal jurisdiction and various state jurisdictions. U.S. federal income tax returns from the year ended August 31, 2006 through the year ended August 31, 2009 are subject to examination.

The ultimate realization of the deferred tax assets is dependent, in part, upon the tax laws in effect, our future earnings, and other events. As of August 31, 2009, we recorded a valuation allowance of $4,026,000 against current deferred tax assets and a valuation allowance of $302,000 against net long-term deferred tax assets. The increase in the valuation allowance for the year ended August 31, 2009 relates primarily to our operating losses. The general valuation allowance has been established under the provisions of SFAS No. 109, Accounting for Income Taxes, which requires that a valuation allowance be established when it is more likely than not that the net deferred tax assets will not be realized.

Note 10: Stock-Based Compensation

Our Amended and Restated 1998 Stock Incentive Plan authorizes the granting of incentive stock options to certain key employees and non-employees who provide services to the Company. The Plan, as amended, provides for the granting of options for an aggregate of 3,427,300 shares. The options vest subject to management's discretion.

Effective February 4, 2009, our Amended and Restated 1998 Directors Stock Plan provides an annual retainer of $60,000 to each non-employee director with the exception of the Audit Committee Chairman who is to receive $65,000. The cash portion of the compensation of $30,000 ($35,000 for the Audit Committee Chairman) is paid 50% twice each year, with $30,000 compensation paid in common stock of the Company once each year. Prior to February 4, 2009, the annual compensation consisted of $15,000 cash ($20,000 for the Audit Committee Chairman) paid 50% twice each year, with $15,000 in common stock of the Company. Prior to February 4, 2009, the Plan also granted each non-employee outside director 30,000 options each year at an exercise price equal to the fair market value of the common stock at the date the option was granted. The options vest according to a set schedule over a five-year period and expire upon the director's termination, or after ten years from the date of grant. The Plan allows for an aggregate of 1,500,000 shares to be granted.

We account for stock-based compensation in accordance with SFAS No. 123(R), Share Based Payments. Under the fair value recognition provisions of this statement, stock-based compensation cost is measured at the grant date based on the value of the award granted using the Black-Scholes option pricing model, and recognized over the period in which the award vests.

The stock-based compensation expense for the year ended August 31, 2009 and 2008 has been allocated to the various categories of operating costs and expenses in a manner similar to the allocation of payroll expense as follows:

	2009	2008
Cost of sales	$ 72,988	$ 86,262
Research and development	186,690	136,993
Selling, general and administrative	858,161	577,177
Total	$ 1,117,839	$ 800,432

Stock-based compensation expense for the year ended August 31, 2007 of $832,224 has been included in selling, general and administrative expenses.

During the year ended August 31, 2009, we granted 1,140,760 options to our directors and employees, 1,055,760 options with one fifth vesting each year for the next five years, and 85,000 options with one third vesting each year for the next three years. The options have a life of ten years.

Unrecognized stock-based compensation expense expected to be recognized over the estimated weighted-average amortization period of 2.86 years is approximately $3,062,000 at August 31, 2009.

Our weighted-average assumptions used in the Black-Scholes valuation model for equity awards with time-based vesting provisions granted during the year ended August 31, 2009 are shown below:

Expected volatility	66.23%
Expected dividends	0%
Expected term	6.00 Years
Risk-free interest rate	2.79%

The expected volatility rate was estimated based on the historical volatility of our common stock. The expected term was estimated based on historical experience of stock option exercise and forfeiture. The risk-free interest rate is the rate provided by the U.S. Treasury for Daily Treasury Yield Curve Rates commonly referred to as “Constant Maturity Treasury” rate in effect at the time of grant with a remaining term equal to the expected option term.

A summary of the time-based stock option awards as of August 31, 2009, and changes during the year then ended, is as follows:

	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contract Term (Years)	Aggregate Intrinsic Value
Outstanding at September 1, 2008	2,182,629	$ 3.02		
Granted	1,140,760	2.94		
Exercised	(815,102)	1.04		
Forfeited or expired	(129,200)	5.94		
Outstanding at August 31, 2009	2,379,087	$ 3.54	8.12	
Exercisable at August 31, 2009	954,971	$ 3.62	6.73	$ 295,653

The aggregate intrinsic value in the preceding table represents the total pretax intrinsic value, based on the Company’s closing stock price of $2.13 as of August 31, 2009, which would have been received by the holders of in-the-money options had the option holders exercised their options as of that date.

The weighted-average grant-date fair value of stock options granted during the year ended August 31, 2009 was $1.79.

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Note 11: Related Party Transactions

During the years ended August 31, 2009, 2008, and 2007, we had sales of $603,000, $2,809,132 and $1,385,332, respectively, to entities controlled by a significant stockholder and member of the Board of Directors. These related party transactions represent 17%, 55% and 49% of total sales for each respective year.

At August 31, 2009 and 2008, receivables include $41,016 and $737,483, respectively, from these related parties.

Note 12: Supplemental Cash Flow Information

Actual amounts paid for interest and income taxes are as follows:

	Years Ended August 31,		
	2009	2008	2007
Interest expense	$ 1,675	$ -	$ -
Income taxes	$ 17,132	$ 8,929	$ 1,798,676

We had the following non-cash financing and investing activities:

During the year ended August 31, 2009, we:

- Decreased income tax receivable and additional paid-in capital by $194,436.
- Increased other comprehensive loss and decreased investments by $4,360,170.
- Increased common stock and decreased additional paid-in capital by $618.

During the year ended August 31, 2008, we:

- Recorded an increase in additional paid-in capital of $171,718 and an increase in income tax receivable of $171,718 related to the tax benefit from the exercise of stock options.
- Increased other comprehensive loss by $1,780,656, decreased investments by $1,568,656 and decreased short-term deferred tax assets by $212,000.
- Increased common stock and decreased additional paid-in capital by $24.

During the year ended August 31, 2007, we:

- Recorded an increase in additional paid in capital of $47,449 and corresponding decrease to income taxes payable related to the tax benefit from the exercise of stock options.
- Increased other comprehensive loss by $261,398, decreased investments by $473,398 and increased short-term deferred tax asset by $212,000.
- Transferred deferred compensation of $247,700 to additional paid-in capital.

- Decreased income taxes payable and decreased income tax receivable by $39,946.
- Increased common stock and decreased additional paid-in capital by $68.

Note 13: Commitments and Contingencies

We entered into an employment agreement with our Senior Vice President and Chief Technical Officer ("CTO") dated November 2, 1988. The agreement sets the CTO's annual base salary for each year until October 1, 1993 and provides that after October 1, 1993 the CTO's annual base salary will be based upon a reasonable mutual agreement between the CTO and the Company. The CTO's annual base salary was raised to $210,000 effective September 1, 2006. In the event of termination of the CTO's employment with the Company without cause (as defined in the agreement) or the CTO's resignation for good reason (as defined in the agreement), the agreement provides that the CTO will receive severance pay for a one-year period, which pay includes an extension of all of his rights, privileges and benefits as an employee (including medical insurance). The one-year severance pay shall be equal to the CTO's average annual salary for the 12-month period immediately prior to the termination. The agreement also requires us to pay the CTO for any accrued, unused vacation at the time of termination. We are also obligated to pay the CTO $1,000 (or the equivalent value in stock options) for each newly issued patent obtained by us as a result of the CTO's efforts (the CTO receives only $500 if multiple inventors are involved). The CTO's agreement includes a non-competition covenant prohibiting him from competing with us for one year following his termination. We may continue the non-competition period for up to four additional years by notifying the CTO in writing and by continuing the severance payments for the additional years during which the non-competition period is extended.

We have an exclusive worldwide license for a unique temperature probe. The license has no determinable life. We pay royalties based upon its sales of this probe. Accrued royalties were $665 and $1,890 as of August 31, 2009 and 2008, respectively. Royalty expense amounted to $6,180, $4,760 and $5,445 for the years ended August 31, 2009, 2008 and 2007, respectively.

Note 14: Fair Value of Financial Instruments

Our financial instruments currently consist primarily of cash and cash equivalents, accounts receivable and accounts payable. We have also historically held short-term investments, which have been classified as held-for-sale, and which are discussed in Note 3. None of our financial instruments are held for trading purposes. We estimate that the fair value of our cash, accounts receivable and accounts payable at August 31, 2009 and 2008 does not differ materially from their aggregate carrying values due to the short-term nature of these financial instruments.

Included in our cash equivalents at August 31, 2009 are money market funds of $7,672,673, which are highly liquid and have a maturity of three months or less.

In accordance with SFAS No. 157, we categorize our financial assets and liabilities that we measure on a recurring basis into a three-level fair value hierarchy as defined in the standard. As of August 31, 2009, our money market funds are the only financial instruments that we measure on a recurring basis. The following table summarizes our financial assets measured on a recurring basis as of August 31, 2009:

Description	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Money Market Funds	$ 7,672,673	$ -	$ -

Note 15: Sale of Equity Interest

The Company held an equity interest in TherMatrx, Inc. ("TherMatrx") until July 15, 2004. On July 15, 2004, TherMatrx was sold to American Medical Systems Holdings, Inc. (AMS). The Company's part of the total proceeds from this sale was approximately 25%. A portion of the payout from the sale was based on contingency payments. In April 2007, the Company received an additional $202,223 in proceeds from the sale of TherMatrx.

Note 16: Recent Accounting Pronouncements

In June 2009, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards (SFAS) No. 168, The FASB Accounting Standards Codification™ and the Hierarchy of Generally Accepted Accounting Principles – a Replacement of FASB Statement No. 162. The Codification will become the source of authoritative U.S. generally accounting principles (GAAP) recognized by the FASB to be applied to nongovernmental entities. Rules and interpretive releases of the Securities and Exchange Commission (SEC) under authority of federal securities laws are also sources of authoritative GAAP for SEC registrants. On the effective date of this Statement, the Codification will supersede all then-existing non-SEC accounting and reporting standards. All other non-grandfathered non-SEC accounting literature not included in the Codification will become nonauthoritative. This statement is effective for financial statements issued for interim and annual periods ending after September 15, 2009 (our quarter ended November 30, 2009). We are currently unable to determine what impact the future application of this pronouncement may have on our financial statements.

On June 12, 2009, the FASB issued SFAS No. 167, Amendments to FASB Interpretation No. 46(R). This statement is a revision to FASB Interpretation No. 46(R), Consolidation of Variable Interest Entities, and changes how a company determines when an entity that is insufficiently capitalized or is not controlled through voting (or similar rights) should be consolidated. The determination of whether a company is required to consolidate an entity is based on, among other things, an entity's purpose and design and a company's ability to direct the activities of the entity that most significantly impact the entity's economic performance. The statement is effective at the start of a company's first fiscal year beginning after November 15, 2009 (our fiscal year beginning September 1, 2010), or January 1, 2010 for companies reporting on a calendar year basis. We currently are unable to determine what impact the future application of this pronouncement may have on our financial statements.

On June 12, 2009, the FASB issued SFAS No. 166, Accounting for Transfers of Financial Assets – an Amendment of FASB Statement No. 140. This statement is a revision to Statement No. 140, Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities, and will require more information about transfers of financial assets, including securitization transactions, and where companies have continuing exposure to the risks related to transferred financial assets. It eliminates the concept of a "qualifying special-purpose entity," changes the requirements for derecognizing financial assets, and requires additional disclosures. The statement is effective at the start of a

company's first fiscal year beginning after November 15, 2009 (our fiscal year beginning September 1, 2010), or January 1, 2010 for companies reporting on a calendar year basis. We currently are unable to determine what impact the future application of this pronouncement may have on our financial statements.

On May 28, 2009, the FASB issued SFAS No. 165, Subsequent Events. This statement is intended to establish general standards of accounting for and disclosures of events that occur after the balance sheet date but before financial statements are issued or are available to be issued. It requires the disclosure of the date through which an entity has evaluated subsequent events and the basis for that date—that is, whether that date represents the date the financial statements were issued or were available to be issued. This disclosure is intended to alert all users of financial statements that an entity has not evaluated subsequent events after that date in the set of financial statements being presented. The statement is effective for interim and annual periods ending after June 15, 2009, or our fiscal year ended August 31, 2009. The implementation of this statement did not have a material impact on our financial statements.

In December 2007, the FASB issued SFAS No. 141(R) (revised 2007), Business Combinations. This statement replaces SFAS No. 141, Business Combinations and applies to all transactions or other events in which an entity (the acquirer) obtains control of one or more businesses (the acquiree), including those sometimes referred to as "true mergers" or "mergers of equals" and combinations achieved without the transfer of consideration. This statement establishes principles and requirements for how the acquirer: a) recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, and any noncontrolling interest in the acquiree; b) recognizes and measures the goodwill acquired in the business combination or a gain from a bargain purchase; and c) determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of the business combination. This statement will be effective for fiscal years, and interim periods within those fiscal years, beginning on or after December 15, 2008, or our fiscal year beginning September 1, 2009. Earlier adoption is prohibited. We currently are unable to determine what impact the future application of this pronouncement may have on our financial statements.

In December 2007, the FASB issued SFAS 160, Noncontrolling Interests in Consolidated Financial Statements. This statement applies to all entities that prepare consolidated financial statements, except not-for-profit organizations, and amends Accounting Research Bulletin ("ARB") 51 to establish accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary. It also amends certain of ARB 51's consolidation procedures for consistency with the requirements of SFAS No. 141(R) (revised 2007). This statement will be effective for fiscal years, and interim periods within those fiscal years, beginning on or after December 15, 2008, or our fiscal year beginning September 1, 2009. Earlier adoption is prohibited. We currently are unable to determine what impact the future application of this pronouncement may have on our financial statements.

In February 2007, the FASB issued SFAS No. 159, The Fair Value Option for Financial Assets and Financial Liabilities – Including an Amendment of FASB Statement No. 115. This statement permits entities to choose to measure many financial instruments and certain other items at fair value. Most of the provisions of SFAS No. 159 apply only to entities that elect the fair value option. However, the amendment to SFAS No. 115 Accounting for Certain Investments in Debt and Equity Securities applies to all entities with available-for-sale and trading securities. SFAS No. 159 is effective as of the beginning of an entity's first fiscal year that begins after November 15, 2007. We adopted SFAS No. 159 on September 1, 2008, with no material impact on our financial statements.

In September 2006, the FASB issued SFAS No. 157, Fair Value Measurements. SFAS No. 157 defines fair value, establishes a framework for measuring fair value, and requires enhanced disclosures about fair value measurements. SFAS No. 157 requires companies to disclose the fair value of their financial instruments according to a fair value hierarchy as defined in the standard. Additionally, companies are required to provide enhanced disclosure regarding financial instruments in one of the categories, including a reconciliation of the beginning and ending balances separately for each major category of assets and liabilities. In February 2008, the FASB issued FSP No. FAS 157-2, which delays by one year the effective date of SFAS No. 157 for certain types of non-financial assets and non-financial liabilities. As a result, SFAS No. 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007 for financial assets and liabilities carried at fair value on a recurring basis, and for

fiscal years beginning after November 15, 2008 for non-recurring non-financial assets and liabilities that are recognized or disclosed at fair value. In October 2008, the FASB issued FSP No. 157-3, Determining the Fair Value of a Financial Asset When the Market for That Asset is Not Active, or FSP 157-3. FSP 157-3 clarifies the application of SFAS 157 in a market that is not active and provides an example to illustrate key considerations in determining the fair value of a financial asset when the market for that financial asset is not active. FSP 157-3 was effective upon issuance, including prior periods for which financial statements have not been issued.

We adopted SFAS No. 157 for financial assets and liabilities carried at fair value on a recurring basis on September 1, 2008 (Note 14). We are currently unable to determine the impact on our financial statements of the application of SFAS No. 157 on September 1, 2009, for non-recurring non-financial assets and liabilities that are recognized or disclosed at fair value.

Note 17: Subsequent Events

We have evaluated events occurring after the date of our accompanying balance sheets through November 6, 2009, the date of the filing of this Annual Report on Form 10-K. We did not identify any material subsequent events requiring adjustment to our accompanying financial statements.