BSD MEDICAL

Shareholders' Meeting 2010

Delivering Thermal Energy to Medicine

BSD MEDICAL CORPORATION
2188 West 2200 South, Salt Lake City, Utah 84119

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS OF
BSD MEDICAL CORPORATION

February 3, 2010

TO THE STOCKHOLDERS OF BSD MEDICAL CORPORATION:

The annual meeting of the stockholders (the "Annual Meeting") of BSD Medical Corporation (the "Company") will be held on February 3, 2010, at The Little America Hotel located at 500 South Main Street, Salt Lake City, Utah 84101. The Annual Meeting will convene at 9:00 a.m. Mountain Time, to consider and take action on the following proposals, which are more fully described in the Proxy Statement:

1. to elect seven members to the Board of Directors to serve until the next annual meeting or until their successors are duly elected and qualified;
2. to approve an amendment and restatement of the Company's Third Amended and Restated 1998 Director Stock Plan;
3. to approve an amendment and restatement of the Company's Second Amended and Restated 1998 Stock Incentive Plan;
4. to ratify the selection of Tanner LC as the Company's independent registered public accountants for the fiscal year ending August 31, 2010; and
5. to transact such other business as may properly come before the Annual Meeting or any adjournment or postponement thereof.

Only owners of record of the Company's issued and outstanding common stock as of the close of business on December 18, 2009 (the "Record Date") will be entitled to notice of and to vote at the Annual Meeting. Each share of common stock is entitled to one vote.

The Company's Proxy Statement is attached hereto. Financial and other information concerning the Company is contained in the Company's Annual Report on Form 10-K for the fiscal year ended August 31, 2009, which accompanies this Proxy Statement.

THE ATTENDANCE AT AND/OR VOTE OF EACH STOCKHOLDER AT THE ANNUAL MEETING IS IMPORTANT, AND EACH STOCKHOLDER IS ENCOURAGED TO ATTEND. TO ASSURE THAT YOUR VOTE IS COUNTED, PLEASE COMPLETE, SIGN, DATE AND PROMPTLY MAIL THE ENCLOSED PROXY WHETHER OR NOT YOU PLAN TO ATTEND THE ANNUAL MEETING.

Important Notice Regarding the Availability of Proxy Materials for the Stockholders Meeting to be Held February 3, 2010:
The proxy statement and annual report to stockholders are available at https://materials.proxyvote.com/055662.

BSD MEDICAL CORPORATION
BY ORDER OF THE BOARD OF DIRECTORS

Salt Lake City, Utah
December 29, 2009

Dennis P. Gauger, Secretary

BSD MEDICAL CORPORATION
2188 West 2200 South, Salt Lake City, Utah 84119

PROXY STATEMENT

BSD MEDICAL CORPORATION

ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON FEBRUARY 3, 2010

This Proxy Statement is furnished in connection with the solicitation of proxies by and on behalf of the Board of Directors (the "Board of Directors" or the "Board") of BSD Medical Corporation, a Delaware corporation (the "Company" or "BSD"), for use at the annual meeting of the stockholders (the "Annual Meeting") to be held February 3, 2010 at The Little America Hotel located at 500 South Main Street, Salt Lake City, Utah 84101, at 9:00 a.m., Mountain Time. Directions to the annual meeting can be obtained by calling Michelle Cisneros at (801) 972-5555.

THIS PROXY STATEMENT, THE NOTICE OF ANNUAL MEETING OF STOCKHOLDERS AND FORM OF PROXY ARE FIRST BEING MAILED TO THE COMPANY'S STOCKHOLDERS ON OR ABOUT DECEMBER 29, 2009.

At the Annual Meeting, the stockholders of the Company will be asked to vote on four proposals. Proposal 1 is the annual election of seven directors to serve on the Company's Board of Directors. Proposal 2 is an amendment and restatement of the Company's Third Amended and Restated 1998 Director Stock Plan to increase the number of shares of common stock reserved for issuance under the plan from 1,500,000 to 1,750,000, to extend the termination date of the plan from August 31, 2011 to August 31, 2015, and to make certain other changes. Proposal 3 is an amendment and restatement of the Company's Second Amended and Restated 1998 Stock Incentive Plan to increase the number of shares of common stock reserved for issuance under the plan from 3,427,300 to 6,337,300. Proposal 4 is the ratification of the selection of Tanner LC as the Company's independent registered public accountants for the fiscal year ending August 31, 2010.

A proxy for use at the Annual Meeting is enclosed. If you execute and deliver a proxy by mailing a proxy card, or by voting via the internet or telephone, you have the right to revoke your proxy at any time before it is exercised by delivering to the Secretary of the Company an instrument revoking it or a duly executed proxy bearing a later date, or by attending the Annual Meeting and voting in person. Subject to revocation, the proxy holders will vote all shares represented by a properly executed proxy received in time for the Annual Meeting in accordance with the instructions on the proxy. If no instruction is specified with respect to a matter to be acted upon, the shares represented by the proxy will be voted **FOR** the proposal in accordance with the recommendation of the Board of Directors.

We will bear the expenses of preparing, assembling, printing and mailing this Proxy Statement and the materials used in the solicitation of proxies. Proxies will be solicited through the mail and may be solicited by our officers, directors and employees in person or by telephone. They will not receive additional compensation for this effort. We do not anticipate paying any compensation to any other party for the solicitation of proxies, but may reimburse brokerage firms and others for their reasonable expenses in forwarding solicitation material to beneficial owners.

RECORD DATE AND QUORUM REQUIREMENTS

December 18, 2009 has been fixed as the record date (the "Record Date") for the determination of stockholders entitled to notice of and to vote at the Annual Meeting. As of the Record Date, 22,014,970 shares of our common stock ("Common Stock") were issued and outstanding. Each outstanding share of common stock will be entitled to one vote on each matter submitted to a vote of the stockholders at the Annual Meeting.

The holders of one-third of the shares of the Common Stock outstanding on the Record Date, present in person or by proxy, will constitute a quorum for the transaction of business at the Annual Meeting and at any adjournment or postponement thereof. Any abstentions and broker non-votes will be deemed as present for purposes of determining a quorum at the Annual Meeting. The seven individuals receiving the most votes will be elected to serve as directors of the Company. Abstentions and broker non-votes will not have the effect of being counted as voted in favor of or against the election of directors. All proposals, except for the election of directors, must be approved by a majority of the votes present in person or represented by proxy at the Annual Meeting, at which a quorum is present. Abstentions will have the effect of being counted as voted against any of these proposals. Broker non-votes will not have the effect of being counted as voted in favor of or against any of these proposals.

MAIL VOTING PROCEDURES

To vote by mail, you should complete, sign and date your proxy card and mail it in the pre-addressed postage-paid envelope that accompanies the delivery of the proxy card. A proxy card submitted by mail must be received by the time of the Annual Meeting in order for the shares to be voted.

TELEPHONE VOTING PROCEDURES

The telephone authorization procedure is designed to authenticate identity to allow you to vote your shares and confirm that your instructions have been properly recorded. Specific instructions to be followed are set forth on the enclosed proxy card. Telephone voting facilities for stockholders of record are available 24 hours a day and will close at 11:59 p.m. Eastern Time on February 2, 2010.

INTERNET VOTING PROCEDURES

The internet authorization procedure is designed to authenticate identity to allow you to vote your shares and confirm that your instructions have been properly recorded. Specific instructions to be followed are set forth on the enclosed proxy card. Internet voting facilities for stockholders of record are available 24 hours a day and will close at 11:59 p.m. Eastern Time on February 2, 2010.

PROPOSAL 1: ELECTION OF DIRECTORS

At the Annual Meeting, seven directors are to be elected to serve until the next annual meeting of stockholders or until a successor for such director is elected and qualified, or until the death, resignation, or removal of such director. It is intended that the proxies will be voted for the seven nominees named below for election to our Board of Directors unless authority to vote for any such nominee is withheld. Each of the nominees is currently a director of the Company. Each person nominated for election has agreed to serve if elected, and the Board of Directors has no reason to believe that any nominee will be unavailable or will decline to serve. In the event, however, that any nominee is unable or declines to serve as a director at the time of the Annual Meeting, the proxies will be voted for any nominee who is designated by the current Board of Directors to fill the vacancy. Unless otherwise instructed, the proxy holders will vote the proxies received by them **FOR** the nominees named below. The seven candidates receiving the highest number of affirmative votes of the shares entitled to vote at the Annual Meeting will be elected as directors.

DIRECTORS

The names of the nominees, their ages and their respective business backgrounds are set forth below as of August 31, 2009.

Name	Position(s) With the Company	Age	Director Since
Timothy C. McQuay	Independent Director and Chairman of the Board	58	2008
Harold R. Wolcott	President and Director	63	2009
Paul F. Turner, MSEE	Senior Vice President, Chief Technology Officer and Director	62	1994
Gerhard W. Sennewald, Ph.D.	Director	73	1994
Michael Nobel, Ph.D.	Independent Director	69	1998
Douglas P. Boyd, Ph.D.	Independent Director	67	2005
Steven G. Stewart	Independent Director and Financial Expert	61	2006

NOMINEES FOR ELECTION TO THE BOARD OF DIRECTORS

Timothy C. McQuay has served as a director of BSD since February 2008 and currently serves as Chairman of the Board of Directors. He is a Managing Director with B Riley & Co., a Los Angeles based investment banking firm. Prior to joining B Riley in September 2008, Mr. McQuay served for ten years as Managing Director Investment Banking at A. G. Edwards & Sons, Inc., where he specialized in Healthcare, including medical technology, biotechnology and specialty pharmaceuticals. He previously served as Partner and Managing Director Investment Banking at Crowell, Weedon & Company; as Vice President Corporate Development at Kerr Group, Inc.; as Managing Director Merchant Banking at Union Bank of California; as Senior Vice-President Corporate Finance at Wedbush Morgan Securities, and as Vice-President Brokerage Services at Alexander & Alexander, Inc. Mr. McQuay holds an AB in Economics from Princeton University and an MBA from UCLA.

Harold R. Wolcott has served as a director of BSD since April 2009. Mr. Wolcott also has served as President of BSD since April 2009. Mr. Wolcott has 40 years experience managing and growing newly-formed venture capital financed corporations as well as multi-million dollar medical device businesses with international operations. He has a wide range of experience in the areas of product research, product engineering, manufacturing and plant management, as well as expertise in all aspects of sales and marketing, acquisition/integration and the sale of medical device businesses. Prior to joining the Company, Mr. Wolcott served for a period of time as President and Chief Operating Officer and later as Director of Dimicron Inc., a development stage medical company utilizing synthetic diamond for orthopedic applications, from August 2006 until March 2009. From March 2001 until June 2005, Mr. Wolcott served as Chief Operating Officer and Director of Rubicon Medical, Inc., a company focusing on proprietary technology in embolic protection for interventional cardiology and interventional neurology.

Paul F. Turner, MSEE, has served as a director of BSD since 1994. Mr. Turner also has served as the Senior Vice President and Chief Technology Officer of BSD since August 1999. From October 1995 to August 1999, Mr. Turner served as the Acting President of BSD. From 1978 to October 1995, Mr. Turner served in various capacities with BSD, including Staff Engineer, Staff Scientist, Senior Scientist, Vice President of Research, and Senior Vice President of Research. Mr. Turner has led the design of microwave treatment systems for tumors,

including the development of external phased array antenna technology to focus radiated microwave energy deep into the central area of the body to treat deep tumors. He has also integrated this technology with magnetic resonance imaging to non-invasively monitor treatments within the patient's body.

Gerhard W. Sennewald, Ph.D., has served as a director of BSD since 1994. From April 1985 to the present, Dr. Sennewald has served as the President and Chief Executive Officer of Medizin-Technik GmbH, of Munich, Germany, a firm which is engaged in the business of distributing hyperthermia equipment and diagnostic imaging equipment and services. In connection with his service to Medizin-Technik GmbH, Dr. Sennewald has been BSD's key European representative and distributor for 17 years and has been instrumental in obtaining the majority of BSD's foreign sales. He also serves on the Board of Directors of TherMatrx, Inc.

Michael Nobel, Ph.D., has served as a director of BSD since January 1998. Dr. Nobel participated in the introduction of magnetic resonance imaging as European Vice President of Fonar Corp. From 1991 to 2007, Dr. Nobel served as the Executive Chairman of the MRAB Group, a company providing diagnostic imaging services to Sweden. From 1995 to 2006, Dr. Nobel was Chairman of the Board of the Nobel Family Society and the American Non-Violence Project Inc. He has also been a consultant to Unesco in Paris and the United Nations Social Affairs Division in Geneva. Today, Dr. Nobel is chairman or board member of ten international companies in medical diagnostics, treatment and information systems; other areas included banking, IT, oil exploration and environmental management. He is visiting professor at the Tokyo Institute of Technology in Japan.

Douglas P. Boyd, Ph.D., has served as a director of BSD since 2005. From January 2007 to the present, Dr. Boyd has served as Chief Executive Officer of TeleSecurity Sciences, Inc., a privately-held company in the business of developing solutions for increasing the effectiveness and automation of airport explosives detection systems. From 1983 to 2005, Dr. Boyd was an adjunct professor of radiology at the University of California, San Francisco. From 1980 to 2004, Dr. Boyd served as Chairman of the Board, Chief Executive Officer and Chief Technology Officer of Imatron Inc., a public company that developed and manufactured ultrafast electron beam CT scanners for use in hospitals and clinics. He is internationally known as an expert in radiology and computed tomography ("CT") imaging systems, and has pioneered the development of fan-beam CT scanners, Xenon detector arrays and EBT scanners. Dr. Boyd has been awarded 16 U.S. patents. He has published more than 100 scientific papers and is a frequent speaker at universities and symposia.

Steven G. Stewart has served as a director of BSD since 2006. He is currently the Chief Financial Officer for Headwaters, Inc. (a New York Stock Exchange company). Mr. Stewart served as Headwaters' Chief Financial Officer from July 1998 until October 2005 when he became the Treasurer and subsequently the Director of Financial Affairs. He was re-appointed as the Chief Financial Officer of Headwaters on September 4, 2007. Prior to joining Headwaters, Mr. Stewart served as a business assurance partner for PricewaterhouseCoopers LLP (formerly Coopers & Lybrand LLP), and as an audit partner with Ernst & Young (formerly Arthur Young), including service as the Salt Lake City office Director of High Technology and Entrepreneurial Services.

COMPOSITION OF THE BOARD OF DIRECTORS

Our Board of Directors currently consists of seven directors. Directors are elected at each annual meeting of stockholders to serve until the next annual meeting of stockholders or until their successors are duly elected and qualified. There are no family relationships among any of our directors, officers or key employees.

CODE OF ETHICS

We have adopted a Code of Ethics that applies to all of our directors, officers and employees. Our Code of Ethics is available on our website (www.bsdmc.com) on our corporate governance page of the investor section of our website. We intend to post amendments to or waivers from our Code of Ethics (to the extent applicable to our chief executive officer, principal financial officer or principal accounting officer) on our website.

AFFIRMATIVE DETERMINATIONS REGARDING DIRECTOR INDEPENDENCE

The Board of Directors has determined each of the following directors to be an "independent director" as such term is defined in the NASDAQ Stock Market Listing Standards: Timothy C. McQuay, Michael Nobel, Douglas P. Boyd and Steven G. Stewart.

In this Proxy Statement, these four directors are referred to individually as an "Independent Director" and collectively as the "Independent Directors."

MEETINGS AND COMMITTEES OF THE BOARD OF DIRECTORS

During fiscal year 2009, the Board of Directors met five times and no director attended fewer than 75% of the meetings of the Board or any of the Board committees of which a director was a member. Although we do not have a formal policy regarding attendance by directors at our annual meeting, we encourage directors to attend and all directors attended the last annual meeting.

The Board of Directors has formed an audit committee and a compensation committee. A copy of the charter of our audit committee is available on our website (www.bsdmc.com) on our corporate governance page of the investor section of our website.

The Audit Committee. The Audit Committee, which held four meetings during fiscal year 2009, is responsible for reviewing and monitoring our financial statements and internal accounting procedures, recommending the selection of independent auditors by the Board, evaluating the scope of the annual audit, reviewing audit results, consulting with management and our independent auditor prior to presentation of financial statements to stockholders and, as appropriate, initiating inquiries into aspects of our internal accounting controls and financial affairs. The Board of Directors has adopted a written audit committee charter.

The members of the Audit Committee are Messrs., Boyd, Stewart, Nobel and McQuay. Mr. Stewart is currently serving as the audit committee chairman and financial expert. All members of the Audit Committee are Independent Directors.

The Nominating Committee. The Company does not have a standing nominating committee or nominating committee charter. Each director participates in decisions relating to nominations for directors. The Board of Directors believes that, considering the size of the Company and the Board of Directors, nominating decisions can be easily made on a case-by-case basis and there is no need for the added formality of a nominating committee. Based on criteria established by the NASDAQ Stock Market relating to director independence, Messrs. Stewart, Boyd, Nobel and McQuay are the Company's only independent directors.

The Board of Directors does not have an express policy with regard to the consideration of any director candidates since the Board believes that it can adequately evaluate nominees on a case-by-case basis. The Board has not previously received any recommendations for director candidates from stockholders, and has not adopted a formal process for considering director candidates who may be recommended by stockholders. However, the Company's policy is to give due consideration to any and all such candidates, and in evaluating director nominees, the Board considers the appropriate size of the Board, the needs of the Company, the skills and experience of its directors, and a candidate's familiarity with our industry. A stockholder may submit a recommendation for director candidates to us at our corporate offices, to the attention of Harold R. Wolcott. We do not pay fees to any third parties to assist us in identifying potential nominees.

The Compensation Committee. The members of the Compensation Committee are Messrs. Boyd, Stewart, Nobel and McQuay. Mr. Boyd is currently serving as the Compensation Committee chairman. All members of the Compensation Committee are Independent Directors. Our Compensation Committee, which met three times during fiscal year 2009, does not currently have a charter. The Compensation Committee has responsibility for establishing and monitoring our executive compensation programs and for making decisions regarding the compensation of our Named Executive Officers (as defined below). The agenda for meetings of the Compensation Committee is determined by the Chairman of the Compensation Committee. The Compensation Committee sets the compensation package of the Named Executive Officers and their annual bonus. For a further description of the Compensation Committee's role, and the use of a compensation consultant, see "Executive Compensation" below.

DIRECTOR COMPENSATION 2009

Our 1998 Director Stock Plan, as amended effective March 1, 2009, provides an annual retainer ("Annual Retainer") in the amount of $60,000 to each non-employee director other than the Audit Committee Financial Expert, who is to receive $65,000. Of the Annual Retainer, $30,000 is to be paid in cash to each such director, other than the Audit Committee Financial Expert, who is to receive $35,000 in cash (the "Cash Payment"). The Cash Payment is payable in equal installments on May 1 and November 1 of each year in which each non-employee director continues to serve as a member of the Board. Each non-employee director is to receive the balance of the Annual Retainer in the form of shares of Common Stock (the "Common Stock Payment"). The portion of the annual retainer that is paid in common stock will be determined by reference to the fair market value of our

Common Stock. The fair market value of the Common Stock will be determined by reference to the closing price, as reported by the NASDAQ Stock Market, of the Common Stock on May 1 of each year, the payment date of the Common Stock Payment.

Prior to March 1, 2009, our 1998 Director Stock Plan provided an annual retainer in the amount of $30,000 to each non-employee director other than the Audit Committee Financial Expert, who was to receive $35,000. Of the annual retainer, $15,000 was to be paid in cash to each such director, other than the Audit Committee Financial Expert, who was to receive $20,000 in cash. Each non-employee director was to receive the balance of the annual retainer in the form of restricted shares of our Common Stock. In addition, each non-employee director was to receive an annual stock option to purchase 30,000 shares of our Common Stock.

On September 1, 2008, all non-employee directors were issued a stock option grant for 30,000 shares with an exercise price of $7.95 per share for their services for fiscal 2008. In addition, for fiscal 2009, each of these directors was paid $23,536 cash and 6,583 shares of common stock, other than Mr. Stewart, the Audit Committee Chairman and Financial Expert, who received $28,536 cash and 6,583 shares of common stock.

DIRECTOR COMPENSATION TABLE

The table below summarizes the compensation paid by the Company to, or earned by, our non-employee directors for the year ended August 31, 2009.

Name (1)	Fees Earned or Paid in Cash ($)	Stock Awards ($)(2)	Option Awards ($) (3)	Total ($)
(a)	(b)	(c)	(d)	(h)
Douglas P. Boyd	23,536	21,036	88,818	133,390
Timothy C. McQuay	23,536	21,036	39,909	84,481
Michael Nobel	23,536	21,036	98,169	142,741
Gerhard W. Sennewald	23,536	21,036	98,169	142,741
Steven G. Stewart	28,536	21,036	84,085	133,657

(1) Harold R. Wolcott, Paul F. Turner and Hyrum A. Mead served as directors in fiscal year 2009, but are omitted from the Director Compensation Table because of their status as a Named Executive Officer. No additional remuneration was paid to Messrs. Wolcott, Turner and Mead for their services as directors.

(2) The amounts shown in column (c) reflect the value of the 6,583 shares of Common Stock issued to the non-employee directors during fiscal year 2009 in accordance with SFAS 123(R).

(3) The amounts shown in column (d) reflect the dollar amount recognized for financial statement reporting purposes with respect to non-employee director stock options for the year ended August 31, 2009 in accordance with SFAS 123(R). The amounts are computed based upon the portion of option awards vesting during 2009, including option awards that were granted in prior years. The grant date value under SFAS 123(R) of stock options awarded to each non-employee director in 2009 was $142,461 (based on the grant of an option for 30,000 shares with a per share Black-Scholes value of $4.75 per share). Assumptions used in the calculation of these amounts are included in Note 10 to the Company's audited financial statements for the year ended August 31, 2009, included in our Annual Report on Form 10-K. As of the end of fiscal year 2009, each non-employee director had outstanding options for the following number of shares of Common Stock: Douglas P. Boyd, 115,000 shares; Timothy C. McQuay 47,457 shares; Michael Nobel, 165,000 shares; Gerhard W. Sennewald, 140,000 shares; and Steven G. Stewart, 106,368 shares.

COMMUNICATIONS WITH DIRECTORS

We have not adopted a formal process for stockholder communications with the Board. Nevertheless, we have tried to ensure that the views of stockholders are heard by the Board or individual directors, as applicable, and that appropriate responses are provided to stockholders in a timely manner. We believe our responsiveness to stockholder communications to the Board has been good. A stockholder may submit any communication with directors to us at our corporate offices, to the attention of Harold R. Wolcott.

RECOMMENDATION OF THE BOARD OF DIRECTORS

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS OF THE COMPANY VOTE **FOR** THE ELECTION OF ALL THE DIRECTOR NOMINEES LISTED ABOVE.

PROPOSAL 2: AMENDMENT AND RESTATEMENT OF THE THIRD AMENDED AND RESTATED 1998 DIRECTOR STOCK PLAN

At the Annual Meeting, our stockholders will be asked to approve an amendment and restatement to the Third Amended and Restated 1998 Director Stock Plan (the "Director Stock Plan") in order to increase the number of shares of Common Stock reserved for issuance under the Director Stock Plan from 1,500,000 to 1,750,000 shares, to extend the termination date of the plan from August 31, 2011 to August 31, 2015, and to make certain other changes.

The affirmative vote of the holders of a majority of the shares of Common Stock present, in person or by proxy, and entitled to vote at the Annual Meeting is required to amend and restate the Director Stock Plan. If the amendment and restatement of the Director Stock Plan is not so approved, it will not become effective.

The five directors who are not employees of the Company (the "Non-Employee Directors") have an interest in the amendment and restatement of the Director Stock Plan because they are eligible for awards under the Director Stock Plan.

INTRODUCTION TO DIRECTOR STOCK PLAN

The Board believes that the availability of stock, stock options and other incentives is an important factor in our ability to attract and retain qualified directors and to provide incentives for them to exert their best efforts on our behalf. This section includes a summary of the material proposed changes to the Director Stock Plan.

The Board believes that the remaining number of shares of Common Stock is not sufficient for future granting needs under the Director Stock Plan. Accordingly, the proposed amendment and restatement of the Director Stock Plan increases the number of shares of Common Stock authorized for issuance under the Director Stock Plan from 1,500,000 shares to 1,750,000 shares. The Board believes that these additional shares would result in an adequate number of shares of Common Stock being available for grant under the Director Stock Plan.

The Director Stock Plan is set to terminate as of August 31, 2011. The amendment and restatement extends the termination date to August 31, 2015. The Board believes that the availability of stock options and other incentives is an important factor in our ability to attract and retain qualified non-employee directors and to provide incentives for them to exert their best efforts on our behalf. The Board believes this extension will allow us to continue this incentive program.

The Director Stock Plan awards shares of Common Stock to each of the Non-Employee Directors each May 1. The number of shares granted is $30,000 divided by the "Fair Market Value" of our Common Stock on the date of the award. At present, the Director Stock Plan defines "Fair Market Value" as the preceding 20 day average closing price of our Common Stock, the average of prices quoted by market makers on those dates, or by such amount as the Board or committee who administers the plan determines in good faith. The amendment and restatement will change the definition of "Fair Market Value" to the closing price of our Common Stock on May 1. The amendment and restatement also clarifies that if options are granted, the grant date exercise price will be the closing price of our Common Stock on the date of grant.

As of November 30, 2009, options to purchase 573,825 shares of Common Stock were outstanding under the Director Stock Plan and 161,952 shares were available for issuance under the Director Stock Plan. The outstanding options had a weighted average exercise price of $5.18.

Certain provisions of the Director Stock Plan are summarized below. The complete text of the proposed amendment and restatement of the Director Stock Plan is attached to this Proxy Statement as Appendix A. Because this summary may not contain all of the information that is important to you, you should review the Proxy Statement, including the appendices, before deciding how to vote.

SUMMARY OF PRINCIPAL PROVISIONS OF THE DIRECTOR STOCK PLAN

The purpose of the Director Stock Plan is to provide for a method of compensation for the Non-Employee Directors that will strengthen the alignment of their financial interests with those of the Company's stockholders.

Our 1998 Director Stock Plan, as amended effective March 1, 2009, provides an annual retainer ("Annual Retainer") in the amount of $60,000 to each non-employee director other than the Audit Committee Financial Expert, who is to receive $65,000. Of the Annual Retainer, $30,000 is to be paid in cash to each such director, other than the Audit Committee Financial Expert, who is to receive $35,000 in cash (the "Cash Payment"). The Cash Payment is payable in equal installments on May 1 and November 1 of each year in which each non-employee director continues to serve as a member of the Board. Each non-employee director is to receive the balance of the Annual Retainer in the form of shares of Common Stock (the "Common Stock Payment"). The portion of the annual retainer that is paid in common stock will be determined by reference to the "Fair Market Value" of our Common Stock. At present, the Director Stock Plan defines "Fair Market Value" as the preceding 20 day average closing price of our Common Stock, the average of prices quoted by market makers on those dates, or by such amount as the Board or committee who administers the plan determines in good faith. The amendment and restatement will change the definition of "Fair Market Value" to the closing price of our Common Stock on May 1, and it will make the closing price of our Common Stock on the date of grant as the exercise price for any options issued pursuant to the plan.

Prior to March 1, 2009, our 1998 Director Stock Plan provided an annual retainer in the amount of $30,000 to each non-employee director other than the Audit Committee Financial Expert, who was to receive $35,000. Of the annual retainer, $15,000 was to be paid in cash to each such director, other than the Audit Committee Financial Expert, who was to receive $20,000 in cash. Each non-employee director was to receive the balance of the annual retainer in the form of shares of our Common Stock. In addition, each non-employee director was to receive an annual stock option to purchase 30,000 shares of our Common Stock.

Options to purchase shares of our Common Stock may still be granted on a discretionary basis to non-employee directors. Options shall not qualify as an "incentive stock option" as defined in Section 422 of the Internal Revenue Code of 1986, as amended (the "Code"). The purchase price of Common Stock issued when an Option is exercised will be equal to the closing price of our Common Stock on the date of grant. Options have a term of ten years. Options vest at the rate of 20% a year. If a director ceases to be a director for any reason, then the unvested portion of any Options terminate and the vested portion of any Options must be exercised within 180 days.

Shares granted under the Director Stock Plan may be authorized but unissued shares or shares we have reacquired. If a subdivison or combination of our Common Stock occurs, we will make proportional adjustments to the number of shares issuable under the Director Stock Plan. The aggregate number of shares of Common Stock which may be granted during the term of the Director Stock Plan is currently 1,500,000. Approval of the amendment to the Director Stock Plan would increase the aggregate number of shares of Common Stock which may be granted during the term of the Director Stock Plan to 1,750,000. Going forward, each Non-Employee Director will continue to receive such annual grants and payments as long as the director has the status of Non-Employee Director. If a Non-Employee Director no longer serves as a director for any reason, that director will be entitled to all unpaid portions of his or her Annual Retainer which will have accrued on a daily basis through the date of such termination.

The Director Stock Plan is set to terminate as of August 31, 2011, unless earlier terminated by the Board. The amendment and restatement extends the termination date to August 31, 2015, unless earlier terminated by the Board. The Board may from time to time amend, modify, suspend, or terminate the Director Stock Plan for the purpose of meeting or addressing any changes in legal requirements or for any other purpose permitted by law. No amendment or alteration shall be effective unless approved by our stockholders to the extent such approval is then required by applicable legal or regulatory requirements.

CERTAIN FEDERAL INCOME TAX CONSEQUENCES

The following is a summary of the principal U.S. federal income tax consequences generally applicable to awards under the Director Stock Plan.

Annual Retainer. A director must recognize ordinary income upon receipt of cash pursuant to the Annual Retainer, and the Company will be entitled to a deduction for the same amount if and to the extent that the amount satisfies applicable rules concerning deductibility of compensation. A director must also recognize ordinary income equal to the fair market value of the shares of Common Stock received pursuant to the Annual Retainer, and the

Company will be entitled to a deduction for the same amount at the same time, subject to applicable rules regarding the deductibility of compensation.

Options. The grant of an option should not result in any taxable income for a director. A director will recognize ordinary income equal to the excess of the fair market value of the shares of Common Stock acquired on the date of exercise over the exercise price, and the Company will be entitled at that time to a tax deduction for the same amount. For individuals subject to Section 16(b) of the Securities Exchange Act of 1934, if the special election under Section 83(b) of the Code is not made, shares of Common Stock received pursuant to the exercise of an option may be treated as restricted as to transferability and subject to a substantial risk of forfeiture for a period of up to six months after the date of exercise. Accordingly, the amount of any ordinary income recognized, and the amount of the Company's tax deduction, may be determined as of the end of such period. The tax consequence to a director upon a disposition of shares of Common Stock acquired through the exercise of an option will depend on how long the shares have been held. There will be no tax consequences to the Company in connection with the disposition of shares acquired pursuant to an option.

NEW PLAN BENEFITS

No benefits under the Director Stock Plan have been or will be available to any Named Executive Officers, executive officers, or employees. Under the Director Stock Plan, each non-employee director who continues to serve on the Board will annually receive $30,000 cash, other than the Audit Committee Financial Expert, who is to receive $35,000, and an amount of Common Stock determined by dividing $30,000 by the fair market value of a share of Common Stock, as described in the Director Stock Plan. Assuming a fair market value of $1.98 per share, the closing price of our Common Stock on November 30, 2009 as reported by The NASDAQ Stock Market, this annual grant would amount to 15,152 shares per director. These grants are contingent upon the election of Non-Employee Directors at the Annual Meeting and will occur on May 1 of each year.

BSD Medical Corporation Amended and Restated 1998 Director Stock Plan

	Dollar Value ($)(1)	Number of Units
Harold R. Wolcott	—	—
Dennis P. Gauger	—	—
Paul F. Turner	—	—
Executive Group	—	—
Non-Executive Director Group	(1)	(1) (Option)
	150,000	75,760(2) (Common Stock)
	155,000	-0-(Cash)
Non-Executive Officer Employee Group	—	—

(1) Effective March 1, 2009, annual grants of stock options under the Director Stock Plan were discontinued; however, future option grants are discretionary. We are therefore unable to determine either the number of or dollar value of the options to purchase shares that may be granted annually to each non-employee director under the Fourth Amended and Restated 1998 Director Stock Plan.

(2) Any payment for a fractional share automatically shall be paid in cash based upon the Fair Market Value on the date of the respective award of such fractional share.

VALUATION OF OUR COMMON STOCK

On November 30, 2009, the closing price of the Company's Common Stock, as reported on The NASDAQ Stock Market, was $1.98 per share.

RECOMMENDATION OF THE BOARD OF DIRECTORS

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS OF THE COMPANY VOTE **FOR** THE AMENDMENT AND RESTATEMENT OF THE DIRECTOR STOCK PLAN.

PROPOSAL 3: AMENDMENT AND RESTATEMENT OF THE SECOND AMENDED AND RESTATED 1998 STOCK INCENTIVE PLAN

At the Annual Meeting, our stockholders will be asked to approve an amendment and restatement of the Company's Second Amended and Restated 1998 Stock Incentive Plan (the "Incentive Plan") to increase the number of shares of Common Stock reserved for issuance under the Incentive Plan from 3,427,300 shares to 6,337,300 shares.

The affirmative vote of the holders of a majority of the shares of Common Stock present, in person or by proxy, and entitled to vote at the Annual Meeting is required to amend and restate the Incentive Plan. If the amendment and restatement of the Incentive Plan is not so approved, it will not become effective.

Our directors and executive officers have an interest in the amendment and restatement of the Incentive Plan because they are eligible for awards under the Incentive Plan.

INTRODUCTION TO INCENTIVE PLAN

The Board believes that the availability of stock options and other incentives is an important factor in the Company's ability to attract and retain qualified employees and to provide incentives for them to exert their best efforts on behalf of the Company.

The Board believes that the remaining number of shares of Common Stock is not sufficient for future granting needs under the Incentive Plan. Accordingly, the proposed amendment and restatement of the Incentive Plan increases the number of shares of Common Stock authorized for issuance under the Incentive Plan from 3,427,300 to 6,337,300 shares. The Board believes that these additional shares would result in an adequate number of shares of Common Stock being available for grant under the Incentive Plan.

As of November 30, 2009, options to purchase 1,788,462 shares of Common Stock were outstanding under the Incentive Plan and 322,329 shares were available for issuance under the Incentive Plan. The outstanding options had a weighted average exercise price of $3.00.

Certain provisions of the Incentive Plan are summarized below. The complete text of the Incentive Plan is attached to this Proxy Statement as Appendix B. Because this summary may not contain all of the information that is important to you, you should review the Proxy Statement, including the appendices, before deciding how to vote.

SUMMARY OF PRINCIPAL PROVISIONS OF THE INCENTIVE PLAN

Selected employees, officers and directors of the Company and its subsidiaries are eligible to participate in the Incentive Plan. Also eligible are selected non-employee agents, consultants, advisors and independent contractors of the Company or any subsidiary. We currently have approximately 49 employees, officers and directors eligible to participate in the Incentive Plan.

The Incentive Plan is administered by the Board, which determines who will receive awards, as well as the type, amount, price, and other terms and conditions of any such award. The Board may delegate any or all authority for administration of the Incentive Plan to a committee of the Board. Subject to the provisions of the Incentive Plan, the Board, or a committee, if any, may adopt and amend rules and regulations relating to the administration of the Incentive Plan. The Board may from time to time amend, terminate or modify the Incentive Plan for the purpose of meeting or addressing any changes in legal requirements or for any other purpose permitted by law. No amendment or alteration shall be effective unless approved by our stockholders to the extent such approval is then required by applicable legal or regulatory requirements.

Types of Awards

The Incentive Plan permits the grants of incentive stock options, non-statutory stock options, stock awards, stock appreciation rights, cash bonus rights, dividend equivalent rights, performance-based awards and foreign qualified grants. Shares awarded under the Incentive Plan may be authorized and unissued shares or shares reacquired by us. If any award granted under the Incentive Plan expires, terminates or is cancelled, or if shares sold

or awarded under the Incentive Plan are forfeited or repurchased by us, the shares again become available for issuance under the Incentive Plan.

The Board determines who receives options, the option price, the number of shares to be covered by each option, the period of each option, the times at which options may be exercised and whether the option is an ISO, as defined in Section 422 of the Code, or a non-statutory stock option ("NSO"). Currently, no employee may be granted options or stock appreciation rights under the Incentive Plan for more than an aggregate of 1,000,000 shares in any consecutive three-year period. No monetary consideration is paid to the Company upon the granting of options.

Options are exercisable in accordance with the terms of an option agreement entered into at the time of grant. If the option is an ISO, all terms must be consistent with the requirements of the Code and applicable regulations, including that the option price cannot be less than the fair market value of the shares of Common Stock on the date of the grant. If the option is an NSO, the option price may be any price determined by the Board, which may be less than the fair market value of the shares of Common Stock on the date of grant. Upon the exercise of an option, the number of shares subject to the option is reduced by the number of shares with respect to which the option is exercised, and the number of shares available under the Incentive Plan for future option grants are reduced by the number of shares with respect to which the option is exercised, less the number of shares surrendered or withheld in connection with the exercise of the option and the number of shares surrendered or withheld to satisfy withholding obligations.

The Board may award shares of Common Stock under the Incentive Plan as stock bonuses, restricted stock awards or otherwise. The Board determines who receives awards and the amount of awards. Shares received are subject to the terms, conditions and restrictions determined by the Board at the time of the award. No one person can receive more than 1,000,000 shares as stock awards. No stock awards have been granted under the Incentive Plan.

The Incentive Plan provides that the Company may issue shares under the Incentive Plan subject to a purchase agreement between the Company and the prospective recipient in such amounts, for such consideration, subject to such restrictions and on such terms as the Board may determine.

Stock appreciation rights ("SARs") may be granted under the Incentive Plan. SARs may, but need not, be granted in connection with an option grant or an outstanding option previously granted under the Incentive Plan. A SAR gives the holder the right to the increase in the fair market value of the shares or the increase over the option price if the SAR is granted in connection with an option. Upon exercise of a SAR, payment can be in shares of Common Stock, in cash, or partly in shares of Common Stock and partly in cash, as determined by the Board. The Board may withdraw any SAR granted under the Incentive Plan at any time and may impose any condition upon the exercise of a SAR or adopt rules and regulations from time to time affecting the rights of holders of SARs. No SARs have been granted under the Incentive Plan.

The Board may grant cash bonus rights under the Incentive Plan in connection with (i) options granted or previously granted, (ii) SARs granted or previously granted, (iii) stock awarded or previously awarded, and (iv) shares sold or previously sold under the Incentive Plan. Bonus rights may be used to provide cash to employees for the payment of taxes in connection with awards under the Incentive Plan. No cash bonus rights have been granted under the Incentive Plan.

The Board may grant awards intended to qualify as performance-based compensation under Section 162(m) of the Code and the regulations thereunder ("Performance-based Award(s)"). Performance-based Awards may be denominated either in shares of Common Stock or in dollar amounts. All or part of the awards will be earned if performance goals established by the Board are met and the employee satisfies any other restrictions established by the Board. The performance goals will be expressed as one or more targeted levels of performance for earnings, earnings per share, stock price increase, total stockholder return (stock price increase plus dividends), return on equity, return on assets, return on capital, economic value added, revenues, operating income, cash flows or any of the foregoing. The maximum Performance-based Award that any individual can receive over a three year period is 1,000,000 shares or $5,000,000. No Performance-based Awards have been granted under the Incentive Plan.

Awards under the Incentive Plan may be granted to eligible persons residing in foreign jurisdictions. The Board may adopt supplements to the Incentive Plan necessary to comply with the applicable laws of foreign jurisdictions and to afford participants favorable treatment under those laws, but no award may be granted under any

supplement with terms that are more beneficial to the participants than the terms permitted by the Incentive Plan. No foreign qualified grants have been awarded under the Incentive Plan.

Changes in Capital Structure

The Incentive Plan provides for appropriate adjustments in case of stock splits, reverse splits, recapitalizations, exchanges, or similar transactions. In the event of a merger or similar event (a "Transaction"), the Board will, in its sole discretion and to the extent possible under the structure of the Transaction, select one of the following alternatives for treating outstanding options under the Incentive Plan: (i) outstanding options will remain in effect in accordance with their terms, (ii) outstanding options shall be converted into options to purchase stock in the corporation that is the surviving or acquiring corporation in the Transaction, or (iii) the Board will provide a 30-day period prior to the consummation of the Transaction during which outstanding options shall be exercisable to the extent exercisable and upon the expiration of such 30-day period, all unexercised options shall immediately terminate. The Board may, in its sole discretion, accelerate the exercisability of options so that they are exercisable in full during such 30-day period. In the event of the dissolution of the Company, options shall be treated in accordance with clause (iii) above.

CERTAIN INCOME TAX CONSEQUENCES

The following is a brief summary of the certain U.S. federal income tax consequences generally applicable to awards under the Incentive Plan.

This summary is for general information purposes only and does not purport to be a complete analysis or listing of all potential U.S. federal income tax consequences that may apply with respect to participation in the Incentive Plan. In addition, this summary does not take into account the individual facts and circumstances of any particular recipient that may affect the U.S. federal income tax consequences of participation in the Incentive Plan. Accordingly, this summary is not intended to be, and should not be construed as, legal or U.S. federal income tax advice with respect to any recipient. Each recipient should consult his or her own financial advisor, legal counsel, or accountant regarding the U.S. federal, U.S. state and local, and foreign tax consequences of participation in the Incentive Plan.

Scope of This Disclosure

Authorities. This summary is based on the Code, Treasury Regulations, published Internal Revenue Service ("IRS") rulings, published administrative positions of the IRS and U.S. court decisions that are applicable as of the date of this document. Any of the authorities on which this summary is based could be changed in a material and adverse manner at any time, and any such change could be applied on a retroactive basis. This summary does not discuss the potential effects, whether adverse or beneficial, of any proposed legislation that, if enacted, could be applied on a retroactive basis.

Grant and Exercise of Options

Incentive Stock Options

If the options granted under the Plan qualify as "incentive stock options" within the meaning of Section 422 of the Code, the following tax consequences will apply to recipients:

Grant. A recipient will not recognize any taxable income at the time an incentive stock option is granted.

Exercise. Upon the exercise of an incentive stock option, a recipient will not recognize any income for purposes of the regular income tax. However, a recipient may be required to recognize income for purposes of the alternative minimum tax (or "AMT").

For purposes of the AMT, an incentive stock option will be treated as a non-qualified option. Accordingly, for purposes of the AMT, a recipient must recognize ordinary income in the amount by which the fair market value of the common stock at the time of exercise exceeds the option exercise price. As a result, if a recipient recognizes a substantial amount of AMT income upon exercise of the incentive stock option in relation to a recipient's taxable income from wages and other sources in the year a recipient exercises the option, a recipient may be subject to the AMT. Furthermore, the fact that a recipient recognizes AMT income at the time a recipient exercise an incentive stock option may not alter the amount of regular income a recipient must recognize at the time a recipient sells or otherwise disposes of the shares acquired upon exercise of the incentive stock option.

A recipient is urged to consult his or her own tax advisor regarding the effect of the AMT and the desirability of selling or otherwise disposing of shares acquired upon exercise of an incentive stock option in the same calendar year in which such recipient acquired the shares to avoid having the AMT apply in the year a recipient exercises the option and the regular tax apply in the year the shares are sold. A recipient is also urged to consult his or her own tax advisor regarding the benefit that may be available from a tax credit for a prior year's minimum tax liability provided for in Section 53 of the Code.

Tax Deduction for Company. If a recipient sells or otherwise dispose of shares acquired upon the exercise of an incentive stock option more than two years from the date the option was granted to such recipient and more than one year after he or she exercised the option, then the Company will not be allowed a deduction for federal income tax purposes in connection with the grant or exercise of the option. However, if a recipient sells or otherwise disposes of the shares before the holding period described above is satisfied, then the Company will be allowed a tax deduction at the time and in the amount the recipient recognizes ordinary income, if and to the extent the amount satisfies the general rules concerning deductibility of compensation. Under current law, this income is not subject to income or payroll tax withholding.

Tax Basis of the Acquired Shares. If a recipient pays the exercise price for an incentive stock option in cash, his or her original tax basis in the shares received upon exercise will equal the option exercise price.

If a recipient pays the exercise price for an incentive stock option by tendering other shares of the Company's common stock already owned by a recipient, and the recipient acquired those tendered shares through any means other than by exercising one or more incentive stock options, he or she will not recognize gain or loss on the tendered shares, but the recipient's original tax basis for an equal number of shares acquired upon exercise of the option will be the same as his or her adjusted tax basis for the tendered shares. The remaining acquired shares will have an original tax basis equal to the amount of the exercise price paid in cash, if any. If a recipient pays the exercise price solely by tendering other shares of the Company's stock, then the original tax basis of the remaining acquired shares will be zero.

If a recipient pays the exercise price for an incentive stock option by tendering shares of the Company's common stock already owned by a recipient, and the recipient acquired those tendered shares by exercising another incentive stock option, Section 1036 of the Code generally provides that such recipient will recognize no gain or loss with respect to the tendered shares (except possibly for purposes of the AMT as described above), as long as he or she has held the tendered shares for a period of time ending at least two years after the date the option for the tendered shares was granted and at least one year after a acquiring the tendered shares upon exercise of the option.

Sale of Shares and Characterization of Capital Gain or Loss. If a recipient sells or otherwise disposes of shares acquired upon exercise of an incentive stock option at a time more than two years from the date the option was granted to such recipient and more than one year after the recipient exercised the option, and if, as usually is the case, the common stock is a capital asset in such recipient's hands, then the recipient will recognize long-term capital gain or loss in an amount equal to the difference between the sale price of the shares and the exercise price he or she paid for the shares.

If a recipients sells or otherwise disposes of shares acquired upon exercise of an incentive stock option before the holding period described above is satisfied, then such recipient will recognize ordinary income at the time of the disposition in an amount equal to the lesser of (1) the difference between the exercise price and the fair market value of the shares at the time the option was exercised or (2) the difference between the exercise price and the amount realized upon disposition of the shares, and such recipient will recognize long-term or short-term capital gain or loss (depending on whether he or she has held the shares for more than 12 months or for 12 months or less) in an amount equal to the difference between the sale price of the shares and the fair market value of the shares on the date such recipient exercised the option.

Non-Qualified Stock Options

If the options granted under the Incentive Plan do not qualify as "incentive stock options" within the meaning of Section 422 of the Code, they will be treated as "non-qualified" stock options (an "NQO") with the following tax consequences to recipients:

Grant. A recipient will not recognize any taxable income upon the grant of an NQO.

Exercise. Upon the exercise of an NQO, a recipient will recognize ordinary income in the amount, if any, by which (a) the fair market value of the Common Shares at the time of exercise exceeds (b) the exercise price for the NQO. The Company generally will be required to report this income to the IRS and to withhold income and payroll taxes.

Tax Basis in the Common Shares. If a recipient pays the exercise price for an NQO in cash, the tax basis in the Common Shares received generally will be equal to the sum of (a) such exercise price plus (b) the amount that such U.S. Participant is required to recognize as ordinary income as a result of the exercise of such NQO. A recipient who pays the exercise price for an NQO in property other than cash (including Common Shares) should consult his or her own financial advisor, legal counsel, or accountant regarding his or her tax basis in the Common Shares.

Tax Deduction for our Company. The Company generally will be allowed a deduction at the time and in the amount that such recipient recognizes ordinary income upon exercise of an NQO, to the general rules concerning deductibility of compensation and the special rules applicable to foreign corporations.

Stock Appreciation Rights

Grant. At the time a SAR is granted, a recipient will not recognize any taxable income.

Exercise. At the time a recipient exercises a SAR, he/she will recognize ordinary income equal to the cash or fair market value of any shares of common stock received at that time (in the amount that is equal to the excess of the fair market value of a share of the Company's common stock on the date the SAR is exercised over the grant price of the SAR).

Tax Deduction for Company. Subject to the general rules concerning deductibility of compensation, the Company will be allowed an income tax deduction in the amount that, and for the Company's taxable year in which a recipient recognizes ordinary income upon the exercise of a SAR.

Tax Basis of the Acquired Shares. A recipient's tax basis in any shares received will equal the fair market value of those shares at the time he or she recognizes ordinary income as a result of exercising the SAR.

Sale of Shares. If, as usually is the case, the shares are a capital asset in a recipient's hands, any additional gain or loss recognized on a subsequent sale or exchange of the shares will not be ordinary income but will qualify as a capital gain or loss.

Characterization of Capital Gain or Loss. Any capital gain or loss a recipient recognizes upon a sale of the shares will be characterized as long-term capital gain or loss if he or she has held the shares for more than 12 months and as short-term capital gain or loss if he or she has held the stock for 12 months or less. For purposes of determining whether a recipient will recognize long-term or short-term capital gain or loss on a subsequent sale of the shares, the holding period will begin at the time a recipient exercises the SAR.

Restricted Stock Awards

Grant and Lapse of Restrictions. Section 83(b) of the Code allows a recipient to elect, within 30 days after the date a restricted stock award is received, to recognize and be taxed on ordinary income equal to the fair market value of the common stock at that time. If a recipient does not make a Section 83(b) election within 30 days from the date the restricted stock award is received, he or she will recognize ordinary income equal to the fair market value of the common stock upon expiration of the restriction period.

Forfeiture. If a recipient does not make the Section 83(b) election described above and, before the restriction period expires, he or she forfeits the restricted stock under the terms of the award, recipient will not recognize any ordinary income in connection with the restricted stock award. If a recipient does make a Section 83(b) election and subsequently forfeits the restricted stock under the terms of the award, he or she will not be allowed an ordinary income tax deduction with respect to the forfeiture. However, such recipient may be entitled to a capital loss.

The Company urges each recipient to consult a tax advisor to determine, in light of current tax rates and possible future tax legislation, whether it is more advantageous to make a Section 83(b) election upon receipt of a restricted stock award (resulting in a current tax liability plus the potential for future capital gains, currently taxed at lower rates than the rate applicable to ordinary income, and a risk of forfeiture without an ordinary income tax

deduction) than not making the Section 83(b) election (resulting in the deferral of tax and the eventual recognition as ordinary income of any appreciation in the fair market value of a recipient's shares).

Dividends Received on Restricted Stock. Dividends, if any, received by a recipient before the end of the restriction period will be taxed as ordinary income to you.

Tax Deduction for the Company. Subject to the general rules concerning deductibility of compensation, the Company will be allowed an income tax deduction in the amount that, and for its taxable year in which, a recipient recognizes ordinary income in connection with a restricted stock award. Dividends, if any, on the restricted stock that are received by a recipient before the end of the restriction period will also be deductible by the Company subject to the general rules concerning compensation.

Tax Basis of Shares. A recipient's basis in the shares will equal their fair market value at the time he or she recognizes ordinary income.

Sale of Shares. A recipient cannot sell or otherwise dispose of the restricted stock until after the restriction period expires. When a recipient sells the shares after the restriction period expires, he or she will recognize gain or loss in an amount by which the sale price of the shares differs from his or her tax basis in the shares. If, as usually is the case, the shares are a capital asset in a recipient's hands, any gain or loss recognized on a sale or other disposition of the shares will qualify as capital gain or loss.

Characterization of Capital Gain or Loss. Any capital gain or loss a recipient recognizes upon sale of the shares will be treated as long-term capital gain or loss if he or she has held the shares for more than 12 months from the date he or she recognized ordinary income with respect to the shares and as short-term capital gain or loss if he or she has held the stock for 12 months or less from the date such recipient recognized ordinary income.

Performance Awards and Other Stock-Based Awards

The Incentive Plan also authorizes performance awards and other stock-based awards, the terms of which are not specified in the Plan. The federal income tax consequences to recipients and to the Company upon the grant and exercise of the performance awards and other stock-based awards will depend on the terms of such awards.

Special Rules for Executive Officers and Directors Subject to Section 16(b)

If a recipient is an executive officer or director of the Company subject to Section 16(b) of the Securities Exchange Act of 1934, any shares acquired upon exercise or payout of a non-qualified option, an incentive stock option (for purposes of the AMT only), a SAR or a restricted stock unit, and any shares of restricted stock that vest, may be treated as restricted property for purposes of Section 83 of the Code if a recipient has had a non-exempt acquisition of shares of Company stock within the six months prior to the exercise, payout or vesting. In that case, the recipient may be deemed to have acquired the shares at a date up to six months after the date the award was exercised or paid out or vested, and such recipient will recognize (and be taxed on) ordinary income as of the later date, rather than as of the date of exercise, payout or vesting.

However, Section 83(b) of the Code allows a recipient to elect to recognize ordinary income as of the date of exercise, payout or vesting, without regard to Section 16(b) restrictions. The recipient must make the election in the manner specified in Section 83(b) within 30 days after the date the recipient exercises the option or SAR or the date of payout or vesting, as applicable. If (1) the shares a recipient acquired upon the exercise, payout or vesting of the award are treated as restricted property for purposes of Section 83 of the Code because of the application of Section 16(b) of the Securities Exchange Act of 1934 and (2) a recipient does not make a Section 83(b) election within the required time period, the amount of taxable ordinary income will be determined as follows:

> For non-qualified options (and incentive stock options treated as non-qualified options for purposes of the AMT), a recipient will recognize and be taxed on ordinary income in the amount by which the fair market value of the shares at the later date exceeds the exercise price, rather than recognizing, and being taxed on, ordinary income in the amount by which the fair market value of the shares on the exercise date exceeds the exercise price.

For a SAR, a recipient will recognize and be taxed on ordinary income in the amount of the fair market value of the shares of common stock at the later date, rather than recognizing, and being taxed on, ordinary income in the amount of the fair market value of the shares as of the date the recipient exercised the SAR.

For restricted stock, a recipient will recognize and be taxed on ordinary income in the amount of the fair market value of the shares of common stock at the later date, rather than recognizing, and being taxed on, ordinary income in the amount of the fair market value of the shares on the date the restricted stock vested.

The Company urges each recipient to consult his or her own tax advisor for more details about these special rules and to help determine if he or she should make a Section 83(b) election.

Deductibility of Executive Compensation Under Code Section 162(m). Section 162(m) of the Code generally limits to $1,000,000 the amount that a publicly-held corporation is allowed each year to deduct for the compensation paid to each of the corporation's principal executive officer and three most highly compensated officers (other than our principal financial officer). However, "qualified performance-based compensation" is not subject to the $1,000,000 deduction limit. In general, to qualify as performance-based compensation, the following requirements need to be satisfied: (1) payments must be computed on the basis of an objective, performance-based compensation standard determined by a committee consisting solely of two or more "outside directors," (2) the material terms under which the compensation is to be paid, including the business criteria upon which the performance goals are based, and a limit on the maximum bonus amount which may be paid to any participant with respect to any performance period, must be approved by a majority of the corporation's stockholders and (3) the committee must certify that the applicable performance goals were satisfied before payment of any performance-based compensation.

The Incentive Plan has been designed to permit grants of options, SARs and other performance-based awards issued under the Incentive Plan to qualify under the performance-based compensation rules so that income attributable to the exercise of a NSO or a SAR or the receipt of other performance-based awards may be exempt from the $1,000,000 deduction limit. Other awards under the Incentive Plan may not so qualify for this exemption. The Incentive Plan's provisions are consistent in form with the performance-based compensation rules, so that if the committee that grants options, SARs and other performance-based awards consists exclusively of members of the Board who qualify as "outside directors," and the exercise price of the options (or deemed exercise price, with respect to SARs) is not less than the fair market value of the shares of Common Stock to which such grants relate, the compensation income arising on exercise of those options or SARs or on receipt of other performance-based awards should qualify as performance-based compensation which is deductible even if that income would be in excess of the otherwise applicable limits on deductible compensation income under Code Section 162(m).

NEW PLAN BENEFITS

It is not possible to currently determine the exact number of options to be granted in the future under the Incentive Plan to our Named Executive Officers, to all executive officers as a group, to all non-executive directors as a group or to all employees as a group. During our fiscal year ended August 31, 2009, 795,760 options were granted to the Named Executive Officers.

VALUATION OF OUR COMMON STOCK

On November 30, 2009, the closing price of the Company's Common Stock, as reported on The NASDAQ Stock Market, was $1.98 per share.

RECOMMENDATION OF THE BOARD OF DIRECTORS

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS OF THE COMPANY VOTE **FOR** THE AMENDMENT AND RESTATEMENT OF THE INCENTIVE PLAN.

PROPOSAL 4: RATIFICATION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTANTS

We are asking the stockholders to ratify the selection of Tanner LC as the Company's independent registered public accountants for the fiscal year ending August 31, 2010. The affirmative vote of the holders of a majority of the shares of Common Stock present, in person or by proxy, and entitled to vote at the meeting will be required to ratify the selection of Tanner LC.

In the event the stockholders fail to ratify the appointment, the Audit Committee will consider it as a direction to select other auditors for the subsequent year. Even if the selection is ratified, the Board or Audit Committee in their discretion may direct the appointment of a different independent registered public accounting firm at any time during the year we determine that such change would be in the best interest of the Company and its stockholders.

Tanner LC audited the Company's financial statements for fiscal years ending August 31, 2009 and 2008. Its representatives will be present at the annual meeting, and will have the opportunity to make a statement if they desire to do so and will be available to respond to appropriate questions.

PRINCIPAL ACCOUNTANT FEES AND SERVICES

The following table presents fees for professional services rendered by Tanner LC for the audit of our annual financial statements for the fiscal years ended August 31, 2009 and August 31, 2008 and fees billed for other services rendered by Tanner LC during those periods.

	2009	2008
Audit Fees (1)	$ 110,000	$ 127,500
Audit Related Fees	—	—
Tax Fees (2)	14,200	13,500
All Other Fees (3)	11,000	—
Total	$ 135,200	$ 141,000

(1) Audit Fees consist of fees billed for the annual audits and quarterly reviews.

(2) Tax Fees consist of fees billed for the preparation of federal and state income tax returns.

(3) Other Fees consist of fees for the review of filings with the SEC made during the year and responses to the SEC comment letter.

PRE-APPROVAL POLICIES

The Audit Committee pre-approved all audit, audit-related and non-audit services performed by our independent auditors and subsequently reviewed the actual fees and expenses paid to Tanner LC. The Audit Committee has determined that the fees paid to Tanner LC for services are compatible with maintaining Tanner LC's independence as our auditors.

AUDIT COMMITTEE REPORT

The Audit Committee has reviewed and discussed our audited financial statements with our management and has discussed with Tanner LC the matters required to be discussed by Statements of Auditing Standards No. 114, *Communication with Those Charged with Governance,* as amended, as adopted by the Public Company Accounting Oversight Board in Rule 3200T.

The Audit Committee has received the written disclosures and the letter from Tanner LC required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent registered public accountant's communications with the Audit Committee concerning independence, and has discussed with the Tanner LC its independence from us.

Based on its review, the Audit Committee recommended to the Board of Directors that the audited financial statements for our fiscal year ended August 31, 2009 be included in our Annual Report on Form 10-K for its fiscal year ended August 31, 2009, which was filed on November 6, 2009.

Submitted by:
Douglas P. Boyd
Steven G. Stewart
Michael Nobel
Timothy C. McQuay
Members of the Audit Committee

RECOMMENDATION OF THE BOARD OF DIRECTORS

THE BOARD OF DIRECTORS RECOMMENDS A VOTE **FOR** THE PROPOSAL TO RATIFY THE SELECTION OF TANNER LC TO SERVE AS THE COMPANY'S INDEPENDENT REGISTERED PUBLIC ACCOUNTANTS FOR THE FISCAL YEAR ENDING AUGUST 31, 2010.

EXECUTIVE OFFICERS

The names of our executive officers, their ages and their respective business backgrounds are set forth below as of August 31, 2009. For information regarding the backgrounds of Harold R. Wolcott and Paul F. Turner, please see their biographical descriptions above under Proposal 1 regarding the election of directors. There are no family relationships among any of our directors, officers or key employees.

Name	Age	Position
Harold R. Wolcott	63	President and Director
Dennis P. Gauger, CPA	57	Chief Financial Officer and Secretary
Paul F. Turner, MSEE	62	Senior Vice President, Chief Technology Officer and Chairman of the Board
Former Executive Officer	62	
Hyrum A. Mead, MBA		Former President and Director

Dennis P. Gauger, CPA, has served as Chief Financial Officer since May 2007 and was appointed Secretary in November 2008. Mr. Gauger is a licensed Certified Public Accountant in Utah and Nevada, and served on a part-time basis prior to his full time employment on April 21, 2009. Mr. Gauger has served other publicly held companies as a part-time, contract chief financial officer, including the following: from April 2004 until November 2008, Mr. Gauger served as Chief Financial Officer for Cimetrix Incorporated, a publicly held software company (CMXX.OB – NASD OTC); from December 2006 until November 2008, Mr. Gauger served as Chief Financial Officer for Golden Phoenix Minerals, Inc. a publicly held mining company (GPXM.OB – NASD OTC); from January 2004 until January 2008, Mr. Gauger served as a director, Chief Financial Officer, and Secretary for Groen Brothers Aviation, Inc., a publicly held aviation company (GNBA — OTCBB); and from November 2001 until March 2007, Mr. Gauger served as a Chief Financial Officer for Nevada Chemicals, Inc., a chemical supply company to the gold mining industry (NCEM-NNM). Additionally, over the past ten years, he has served several public and private companies in a variety of industries as a part-time, contract financial executive, corporate troubleshooter and consultant. Previously, Mr. Gauger worked for Deloitte & Touche LLP, an international accounting and consulting firm, for 22 years, including 9 years as an accounting and auditing partner. He is a member of the American Institute of Certified Public Accountants and the Utah Association of Certified Public Accountants.

Effective April 7, 2009, Hyrum A. Mead retired as President and a Director of the Company.

SIGNIFICANT EMPLOYEES

In addition to the officers and directors identified above, we expect the following individuals to make significant contributions to our business during fiscal 2009:

Name	Age	Position
Brian L. Ferrand	54	Vice President of Sales
Dixie Toolson Sells	59	Vice President of Regulatory Affairs
Steven M. Smith	53	Vice President of Marketing and Business Development
Richard A. White	53	Vice President of International Sales

Brian L. Ferrand, joined BSD as Vice President of Sales in October 2005. From October 2004 to October 2005, Mr. Ferrand worked as an independent consultant. Previously, Mr. Ferrand served as Vice President of Sales and as a corporate officer of Merit Medical Systems, Inc. from 1993 until October 2004. At Merit Medical Systems, Mr. Ferrand also served as Director of Sales from 1992 to 1993 and as a National Sales Manager from 1991 to 1992. Merit Medical Systems (a NASDAQ company), is a leading manufacturer and marketer of products used in diagnostic and interventional cardiology and radiology procedures worldwide.

Dixie Toolson Sells has served as Vice President of Regulatory Affairs of BSD since December 1994. Ms. Sells served as Administrative Director of BSD from 1978 to 1984; as Director of Regulatory Affairs from 1984 to September 1987; and as Vice President of Regulatory Affairs from September 1987 to October 1993. In October 1993, Ms. Sells resigned as Vice President of Regulatory Affairs, and she served as Director of Regulatory Affairs from October 1993 to December 1994. In December 1994, Ms. Sells was re-appointed as Vice President of Regulatory Affairs and was appointed as Corporate Secretary by the Board of Directors. Ms. Sells resigned as

Corporate Secretary of BSD in March 2002. Ms. Sells also serves on the Board of Directors of the Intermountain Biomedical Association.

Steven M. Smith joined BSD in June 2009. Mr. Smith has 32 years of experience in the medical industry, with expertise in marketing, sales, new business development, product research and development, operations and corporate management. Prior to joining BSD, Mr. Smith served for five years at Bard Access Systems, Inc., a division of C.R. Bard, most recently as Director, Business Development. Mr. Smith's responsibilities at BSD include market analysis, product positioning, leveraging of existing technologies, new product launches and promotional activities.

Richard A. White, joined BSD in 2004, and serves as Vice President of International Sales for the Company. Mr. White has been deeply involved in international sales since obtaining his degree in international business at The Garvin School of International Management "Thunderbird" in 1980. He has played a key role in the founding of new companies, has led a national sales organization selling large capital equipment in power control systems and served as International Sales Manager for Merit Medical Systems (a NASDAQ company), which is a leading manufacturer and marketer of products used in diagnostic and interventional cardiology and radiology procedures worldwide. Prior to joining BSD, Mr. White served for two years as manager of the Home Touch sales division of Life Touch.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

The following discussion and analysis provides information regarding our executive compensation objectives and principles, procedures, practices and decisions, and is provided to help give perspective to the numbers and narratives that follow in the tables in this section. This discussion will focus on our objectives, principles, practices and decisions with regards to the compensation of Harold R. Wolcott, President, Paul F. Turner, Senior Vice President and Chief Technology Officer, Dennis P. Gauger, Chief Financial Officer, and Hyrum A. Mead, former President, our named executive officers ("Named Executive Officers").

Executive Compensation Objectives and Principles

The overall objective of our executive compensation program is to help create long-term value for our shareholders by attracting and retaining talented executives, rewarding superior operating and financial performance, and aligning the long-term interests of our executives with those of our shareholders. Accordingly our executive compensation program incorporates the following principles:

Compensation should be based upon individual job responsibility, demonstrated leadership ability, management experience, individual performance and Company performance.

Compensation should reflect the fair market value of the services received. We believe that a fair and competitive pay package is essential to attract and retain talented executives in key positions.

Compensation should reward executives for long-term strategic management and enhancement of shareholder value.

Compensation should reward performance and promote a performance oriented environment.

Executive Compensation Procedures

We believe that compensation paid to our executive officers should be closely aligned with our performance and the performance of each individual executive officer on both a short-term and a long-term basis, should be based upon the value each executive officer provides to us, and should be designed to assist us in attracting and retaining the best possible executive talent, which we believe is critical to our long-term success. To attain our executive compensation objectives and implement the underlying compensation principles, we follow the procedures described below.

Role of the Compensation Committee. The Compensation Committee has responsibility for establishing and monitoring our executive compensation programs and for making decisions regarding the compensation of our Named Executive Officers. The agenda for meetings of the Compensation Committee is determined by the Chairman of the Compensation Committee. The Compensation Committee sets the compensation package and

annual bonus of the Named Executive Officers. Our President, Mr. Wolcott, suggests items to be considered by the Compensation Committee from time to time, including the compensation package for the other Named Executive Officers and participates in meetings in which the compensation package of the other Named Executive Officers is discussed.

The Compensation Committee relies on its judgment in making compensation decisions after reviewing our performance and evaluating our executives' leadership abilities and responsibilities with our company and their current compensation arrangements. The Compensation Committee assessment process is designed to be flexible so as to better respond to the evolving business environment and individual circumstances.

Role of Compensation Consultant. Mercer Human Resource Consulting ("Mercer") has assisted the Compensation Committee with its administration of compensation programs for the Company's executive officers. In 2006, the Compensation Committee engaged Mercer, an outside human resources consulting firm, to conduct a review of its total compensation program for executive officers and to provide peer compensation data. Based upon the market analyses performed by Mercer, it made recommendations to the Compensation Committee as to the form and amount of executive compensation to be awarded to the executive officers. The Compensation Committee considered the recommendations of Mercer in setting executive compensation for fiscal 2009.

Elements of Compensation

Our executive compensation objectives and principles are implemented through the use of the following elements of compensation, each discussed more fully below:

- Base Salary
- Annual Incentive Bonuses
- Stock-Based Compensation
- Severance Benefits
- Other Benefits

Base Salary. The Compensation Committee approved the salaries of all our executive officers for fiscal year 2009. Salary decisions concerning these officers were based upon a variety of considerations consistent with the compensation philosophy stated above. First, salaries were competitively set relative to both other companies in the medical products industry and other comparable companies. In determining the salaries for our executives in fiscal 2009, the Compensation Committee compared the compensation of some of the public companies in the biotechnology industry to the compensation of our executives. In August 2006, our Compensation Committee reviewed the published compensation of the named executive officers of Introgen Therapeutics, Inc., RITA Medical Systems, Inc., Cell Therapeutics, Inc., Immunicon Corporation, Poniard Pharmaceuticals, Inc., Entremed, Inc., OXiGENE, Inc., Theragenics Corporation, Antigenics Inc./DE, Inovio Biomedical Corporation, Praecis Pharmaceuticals Incorporated and Celsion Corporation. We believe that the base salaries and the total compensation of our executives are approximately equal to or less than the median base salaries and median total compensation of executives with similar positions at these companies. Second, the Compensation Committee considered each officer's level of responsibility and individual performance, including an assessment of the person's overall value to the Company. Third, internal equity among employees was factored into the decision. Finally, the Compensation Committee considered our financial performance and our ability to absorb any increases in salaries. In the case of Mr. Gauger, base pay prior to his employment with the Company was paid in the form of a monthly fee for his services under his consulting agreement.

Annual Incentive Bonuses. In accordance with their employment agreements, Messrs. Turner and Mead were eligible to receive an annual incentive bonus. The annual bonus is intended to motivate participating executives to achieve both short-term and long-term strategic and financial objectives. For fiscal 2009, the Compensation Committee did not precisely define the parameters of the bonuses for Mr. Mead and Mr. Turner at the beginning of the year. However, the general goals of the Company were discussed with these officers throughout the year. The Compensation Committee did not approve bonuses for Mr. Mead and Mr. Turner for fiscal year 2009.

Stock-Based Compensation. Each Named Executive Officer is eligible to participate in the BSD Medical Corporation 1998 Stock Incentive Plan, which provides for the granting of stock options, stock appreciation rights, performance awards, and other stock-based awards and cash-based awards to selected employees, non-employees

and directors. Historically, we have issued options pursuant to this incentive plan, and typically these options vest ratably over a term of up to 5 years as determined by the Compensation Committee. We do not have any policies for allocating compensation between long-term and currently paid out compensation or between cash and non-cash compensation or among different forms of non-cash compensation. Although we do not have any formal policy for determining the amount of stock options or the timing of our stock option grants, we have historically granted stock options to high-performing employees (i) in recognition of their individual achievements and contributions to our company, and (ii) in anticipation of their future service and achievements. On April 10, 2009, we granted 655,760 stock options to Mr. Wolcott upon his appointment as President. On September 12, 2008, we granted 40,000 stock options to Mr. Gauger upon his joining us as a part-time employee, and on April 28, 2009, we granted 100,000 stock options to Mr. Gauger upon his joining us as a full-time employee. The Compensation Committee felt that the size of these grants was appropriate in order to attract and properly motivate a new President and a Chief Financial Officer with increased responsibilities.

Severance Benefits. Under the terms of employment agreements entered into with Mr. Turner and Mr. Mead, which are discussed below under "Employment and Independent Contractor Agreements" and "Potential Payments Upon Termination", we agreed to compensate Mr. Turner and Mr. Mead in the event of termination of their employment without cause or their resignations for good reason. We entered into these agreements with Mr. Turner and Mr. Mead in order to establish in advance the appropriate treatment for terminating executives and to ensure market competitiveness with other companies that offer such arrangements. Mr. Mead is no longer an employee of the Company. Please see "Employment and Independent Contract Agreements" below for a description of his separation agreement.

Other Benefits. Our Named Executive Officers receive the same benefits that are available to all other full time employees, including the payment of health, dental, life and disability insurance premiums.

Deductibility of Executive Compensation

Code Section 162(m) limits the amount that we may deduct for compensation paid to our principal executive officer and to each of our three most highly compensated officers (other than our principal financial officer) to $1.0 million per person, unless certain exemption requirements are met. Exemptions to this deductibility limit may be made for various forms of performance-based compensation. In the past, annual salary and bonus compensation to our executive officers has not exceeded $1.0 million per person, so the compensation has been deductible. In addition to salary and bonus compensation, upon the exercise of stock options that are not treated as incentive stock options, the excess of the current market price over the option price, or option spread, is treated as compensation and accordingly, in any year, such exercise may cause an officer's total compensation to exceed $1.0 million. Under certain regulations, option spread compensation from options that meet certain requirements will not be subject to the $1.0 million cap on deductibility. While the Compensation Committee cannot predict how the deductibility limit may impact our compensation program in future years, the Compensation Committee intends to maintain an approach to executive compensation that strongly links pay to performance.

The Compensation Committee reviews and considers the deductibility of executive compensation under Section 162(m) of the Code. In certain situations, the Compensation Committee may approve compensation that will not meet the requirements of Code Section 162(m) in order to ensure competitive levels of total compensation for its executive officers.

COMPENSATION COMMITTEE REPORT

The Compensation Committee has reviewed the foregoing Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K and discussed the Compensation Discussion and Analysis with the Company's management. Based on such review and discussions with management, the Compensation Committee recommended to the Board that the foregoing Compensation Discussion and Analysis be included in this Proxy Statement on Form 14A.

COMPENSATION COMMITTEE

Douglas P. Boyd
Steven G. Stewart
Michael Nobel
Timothy C. McQuay

Summary Compensation Table

The table below summarizes the total compensation paid to or earned by each of the Named Executive Officers for services in all capacities to the Company and its affiliates for the year ended August 31, 2009:

Name and Principal Position	Year	Salary	Bonus(1)	Option Awards(2)	All Other Compensation	Total
(a)	(b)	(c)	(d)	(e)	(i)	(j)
Harold R. Wolcott President	2009	$103,673	$ —	$54,727	$ 583 (3)	$158,983
Paul F. Turner	2009	211,000	—	38,520	10,835 (4)	260,355
Senior VP and Chief Technology Officer	2008	210,000	73,500	28,890	7,357 (4)	319,747
Dennis P. Gauger	2009	139,833	—	66,571	10,838 (5)	217,242
Chief Financial Officer	2008	9,000	—	—	70,105 (5)	79,105
Hyrum A. Mead	2009	151,198	—	38,520	336,759 (6)	526,477
Former President	2008	250,000	87,500	28,890	7,734 (6)	374,124

(1) The amounts shown in this column constitute the cash bonuses made to certain named executive officers. These awards are discussed in further detail in the Compensation Discussion and Analysis section of this proxy statement.

(2) The amounts shown in column (e) reflect the dollar amount recognized for financial statement reporting purposes with respect to employee stock options for the years ended August 31, 2009 and 2008 in accordance with SFAS 123(R). Assumptions used in the calculation of these amounts are included in Note 10 to the Company's audited financial statements for the years ended August 31, 2009 and 2008, included in our Annual Report on Form 10-K. The amounts are computed based upon the portion of option awards vesting during 2009 and 2008, including option awards that were granted in prior years.

(3) These amounts consist of life insurance premiums of $75, dental insurance premiums of $188 and disability insurance premiums of $320 paid by the Company in 2009.

(4) These amounts consist of life insurance premiums of $148, medical insurance premiums of $9,684, dental insurance premiums of $365 and disability insurance premiums of $638 paid by the Company in 2009, and life insurance premiums of $145, medical insurance premiums of $6,571 and disability insurance premiums of $641 paid by the Company in 2008.

(5) These amounts consist of life insurance premiums of $148, medical insurance premiums of $9,684, dental insurance premiums of $365 and disability insurance premiums of $641 paid by the Company in 2009, and life insurance premiums of $12, medical insurance premiums of $510, dental insurance premiums of $30, disability insurance premiums of $53, and fees paid to Mr. Gauger as Chief Financial Officer on a part-time, contract basis of $69,500 paid by the Company in 2008.

(6) These amounts consist of life insurance premiums of $148, medical insurance premiums of $12,809, dental insurance premiums of $365, disability insurance premiums of $638, accrued vacation of $102,254, severance of $212,500, and continuance of benefits of $8,045 paid by the Company in 2009, and life insurance premiums of $145, medical insurance premiums of $6,571, dental insurance premiums of $380 and disability insurance premiums of $638 paid by the Company in 2008.

Grants of Plan-Based Awards – 2009

The following table provides information about plan-based awards granted to the Company's Named Executive Officers in fiscal year 2009:

Name	Grant Date	All Other Option Awards: Number of Securities Underlying Options (#) (1)	Exercise Price of Option Awards ($/share)	Grant Date Fair Value of Stock and Option Awards ($) (2)
(a)	(b)	(j)	(k)	(l)
Harold R. Wolcott	4/10/2009	655,760	1.70	693,586
Dennis P. Gauger	9/12/2008	40,000	7.31	174,469
Dennis P. Gauger	4/28/2009	100,000	2.40	149,574
Paul F. Turner	—	—	—	—
Hyrum A. Mead	—	—	—	—

(1) Options vest in equal annual installments (20% each year) on the anniversary of the date of grant, except for the 40,000 options granted to Mr. Gauger on September 12, 2008, which vest in equal annual installments (33.3% each year) on the anniversary of the date of grant.

(2) The grant date value is computed using the Black-Scholes option pricing model in accordance with SFAS 123(R). Assumptions used in the calculation of these amounts are included in Note 10 to the Company's audited financial statements for the year ended August 31, 2009, included in our Annual Report on Form 10-K.

Employment and Independent Contractor Agreements

On April 4, 2009, the Board of Directors of the Company appointed Mr. Wolcott as the new President of the Company, effective as of April 7, 2009. In addition, Mr. Wolcott was appointed as a member of the Board of Directors, effective as of April 7, 2009. The Company and Mr. Wolcott agreed to the terms of an offer letter, dated April 7, 2009 (the "Offer Letter"), pursuant to which Mr. Wolcott receives an annual salary of $250,000 and received 655,760 stock options pursuant to the Company's Amended and Restated 1998 Stock Incentive Plan. Mr. Wolcott also participates in the other benefit plans available to employees of the Company.

On April 7, 2009, Mr. Mead announced his retirement as President and a Director of the Company. In connection with his retirement, the Board of Directors of the Company approved a separation agreement entered into by and between the Company and Mr. Mead. Pursuant to the separation agreement, Mr. Mead, among other things, agreed to a general release of any and all legal claims against the Company, and the Company, among other things, (1) agreed to provide a severance payment to Mr. Mead in an amount equal to $212,500, and (2) to continue all employee benefits and perquisites until October 31, 2009.

We entered into an employment agreement with Mr. Turner dated November 2, 1988. The agreement sets Mr. Turner's annual base salary for each year until October 1, 1993 and provides that after October 1, 1993 Mr. Turner's annual base salary will be based upon a reasonable mutual agreement between Mr. Turner and the Company. Mr. Turner's annual base salary was raised to $210,000 effective September 1, 2006. In the event of termination of Mr. Turner's employment with the Company without cause (as defined in the agreement) or Mr. Turner's resignation for good reason (as defined in the agreement), the agreement provides that Mr. Turner 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 Mr. Turner's average annual salary for the 12-month period immediately prior to the termination. The agreement also requires us to pay Mr. Turner for any accrued, unused vacation at the time of termination. We are also obligated to pay Mr. Turner $1,000 (or the equivalent value in stock options) for each newly issued patent obtained by us as a result of Mr. Turner's efforts (Mr. Turner receives only $500 if multiple inventors are involved). Mr. Turner'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 Mr. Turner in writing and by continuing the severance payments for the additional years during which the non-competition period is extended.

Dennis P. Gauger, Chief Financial Officer, served the Company on a part-time, contract basis through July 15, 2008, and received monthly compensation of $6,000. On July 16, 2008, Mr. Gauger became an employee of the Company, and currently receives an annual base salary of $180,000.

Outstanding Equity Awards at Fiscal Year-End 2009

This table provides information on the year-end 2009 holdings of Company stock options by the Named Executive Officers.

Name	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price ($)	Option Expiration Date
(a)	(b)	(c)	(e)	(f)
Harold R. Wolcott	—	655,760 (1)	1.70	04/10/2019
Paul F. Turner	127,900 (2)	—	1.20	04/09/2014
Paul F. Turner	12,000 (2)	24,000 (2)	5.10	12/19/2017
Dennis P. Gauger	13,333 (2)	26,667 (2)	7.31	09/12/2018
Dennis P. Gauger	—	100,000 (1)	2.40	04/28/2019
Hyrum A. Mead	—	—	—	—

(1) Options vest in equal annual installments (20% each year) on the anniversary of the grant date.

(2) Options vest in equal annual installments (33.3% each year) on the anniversary of the grant date.

Option Exercises and Stock Vested for Fiscal Year 2009

The named executive officers exercised stock options during the year ended August 31, 2009 as outlined below.

Name	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise ($) (1)
(a)	(b)	(c)
Hyrum A. Mead	665,790	2,852,226
Paul F. Turner	149,312	921,255
Harold R. Wolcott	—	—
Dennis P. Gauger	—	—

(1) The amounts in this column reflect the difference between the exercise price of the options and the market price of the Company's Common Stock on the date of exercise.

Potential Payments Upon Termination

The information below describes and quantifies certain payments or benefits that would be payable to Named Executive Officers under their existing employment agreements and our existing plans and programs had they been terminated on August 31, 2009. These benefits are in addition to benefits generally available to all salaried employees of the Company in connection with a termination of employment such as disability and life insurance benefits, the value of employee-paid group health plan continuation coverage under COBRA and accrued vacation pay.

As discussed above, Mr. Turner has a written employment agreement that provides for certain severance payments and benefits in the event of termination of his employment with the Company without cause or his resignation for good reason. For further details about Mr. Turner's employment agreement, please see "Employment and Independent Contractor Agreements" above.

Name	Severance Pay (1) ($)	Stock Option Vesting Acceleration ($)
(a)	(b)	(c)
Paul F. Turner (2)	265,751	—

(1) The amounts in column (b) include salary, bonus, unpaid vacation, and continuation of employee benefits.

(2) Mr. Turner's employment agreement provides for severance pay equal to Mr. Turner's average annual salary for the 12-month period immediately prior to the termination, plus unpaid vacation. Mr. Turner will also be granted a 12-month extension of all rights, privileges and benefits as an employee (including medical insurance).

The Company does not have any agreement with Messrs. Wolcott and Gauger to pay them severance or other benefits following termination of their employment. Therefore, if Mr. Wolcott's and Mr. Gauger's employment by the Company had terminated for any reason on August 31, 2009, they would not have been entitled to any severance or other benefits following such termination. In addition, there would not have been any acceleration of vesting of stock options granted to Messrs. Wolcott and Gauger.

Mr. Mead is no longer an employee of the Company. Please see "Employment and Independent Contractor Agreements" above for a description of his separation agreement.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth information known to us with respect to beneficial ownership of our Common Stock as of November 30, 2009 for (i) each director and nominee, (ii) each holder of 5.0% or greater of our Common Stock, (iii) our Named Executive Officers, and (iv) all executive officers and directors as a group. Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission (the "Commission"), and generally includes voting or investment power with respect to securities. Shares subject to options that are exercisable within 60 days following November 30, 2009 are deemed to be outstanding and beneficially owned by the optionee or group of optionees for the purpose of computing share and percentage ownership of that optionee or group of optionees, but are not deemed to be outstanding for the purpose of computing the percentage ownership of any other person. Except as indicated by footnote, the persons named in the table have sole voting and investment power with respect to all shares of Common Stock shown beneficially owned by them. The inclusion of any shares as beneficially owned does not constitute an admission of beneficial ownership of those shares. The percentage calculation of beneficial ownership is based on 22,014,970 shares of Common Stock outstanding as of November 30, 2009. Except as otherwise noted, the address of each person listed on the following table is 2188 West 2200 South, Salt Lake City, Utah 84119.

	Common Stock Beneficially Owned	
Name of Beneficial Owner	Shares	Percent
Officers and Directors		
Dr. Gerhard W. Sennewald (1)	6,400,174	29.0%
Paul F. Turner (2)	1,900,474	8.6%
Dr. Michael Nobel (3)	335,325	1.5%
Douglas P. Boyd (4)	295,508	1.3%
Steven G. Stewart (5)	58,091	*
Timothy C. McQuay (6)	16,300	*
Harold R. Wolcott	—	—
Dennis P. Gauger (7)	13,333	*
Former Officer and Director		
Hyrum A. Mead	51,428	*
Holders of More Than 5%		
John E. Langdon (8)	1,295,010	5.9%
All Executive Officers and Directors as a Group (8 persons) (9)	9,019,205	40.1%

* Less than 1%

(1) Includes 82,000 shares subject to stock options that are currently exercisable or exercisable within 60 days after November 30, 2009.

(2) Includes 151,900 shares subject to stock options that are currently exercisable or exercisable within 60 days after November 30, 2009.

(3) Includes 106,000 shares subject to stock options that are currently exercisable or exercisable within 60 days after November 30, 2009.

(4) Includes 56,000 shares subject to stock options that are currently exercisable or exercisable within 60 days after November 30, 2009.

(5) Includes 45,821 shares subject to stock options that are currently exercisable or exercisable within 60 days after November 30, 2009.

(6) Includes 9,491 shares subject to stock options that are currently exercisable or exercisable within 60 days after November 30, 2009.

(7) Includes 13,333 shares subject to stock options that are currently exercisable or exercisable within 60 days after November 30, 2009.

(8) Includes 351,862 shares owned directly by Mr. Langdon. The remaining shares are held in the Dora Lee Langdon 1994 Children's trust for the Benefit of Clay Allison Langdon and Lee Kendall Langdon, for which Mr. Langdon is Trustee. Mr. Langdon's address is: 2501 Parkview Drive, Suite 500, Fort Worth, TX 76102.

(9) Includes 464,545 shares subject to stock options that are currently exercisable or exercisable within 60 days after November 30, 2009. Does not include shares held by Mr. Mead, as he is not currently an executive officer.

EQUITY COMPENSATION PLAN INFORMATION

The following table summarizes the Company's equity compensation plans as of August 31, 2009.

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders (1)	2,379,087	$3.54	617,481
Equity compensation plans not approved by security holders	—	—	—
Total	2,379,087	$3.54	617,481

(1) A total of 4,927,300 shares of Common Stock have been reserved for issuance under the plans. To date, a total of 1,995,014 options have been exercised under the plans.

SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires the Company's directors and officers, and persons who own more than 10% of a registered class of the Company's equity securities to file with the Commission initial reports of ownership and reports of changes in ownership of equity securities of the Company. Officers, directors, and greater than 10% stockholders are required to furnish the Company with copies of all Section 16(a) forms they file. Based solely on review of the copies of such forms received by the Company, or written representations from certain reporting persons, the Company believes that during the year ended August 31, 2009 all reporting persons complied with all applicable filing requirements.

CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

Since September 1, 2007, there has not been, nor is there any proposed transaction in which the Company was or will be a party or in which it was or will be a participant, involving an amount that exceeded or will exceed $120,000 and in which any director, executive officer, beneficial owner of more than 5% of any class of the Company's voting securities, or any member of the immediate family of any of the foregoing persons had or will have a direct or indirect material interest, other than the transactions which are described below.

Medizin-Technik GmbH. BSD supplies equipment components to Medizin-Technik GmbH located in Munich, Germany, which is a significant distributor of BSD's products in Europe. Medizin-Technik purchases equipment, which it installs, and components to service the BSD hyperthermia therapy systems that Medizin-Technik sells to its customers in Europe. For the fiscal years 2008 and 2009 and for the first quarter of fiscal year 2010, BSD had revenue of $2,809,132, $603,000 and $153,308, respectively, from the sale of systems and various component parts sold to Medizin-Technik. As of August 31, 2008 and 2009, and as of the end of the first quarter of fiscal year 2010, accounts receivable from Medizin-Technik were $737,483, $41,016 and $152,560, respectively. Dr. Gerhard W. Sennewald, one of BSD's directors and significant stockholders, is the President and Chief Executive Officer of Medizin-Technik and its sole stockholder. Management believes the terms of the transactions with Medizin-Technik were arms length and fair to the Company.

The Company does not have a formal written process for reviewing related person transactions. The Company expects that its management will review for potential conflict of interest situations, on an ongoing basis, any future proposed transaction, or series of transactions, with related persons, and either approve or disapprove each reviewed transaction or series of related transactions with related persons.

STOCKHOLDER PROPOSALS

No proposals have been submitted by stockholders of the Company for consideration at the Annual Meeting. It is anticipated that the next annual meeting of stockholders will be held on or about February 1, 2011. Stockholders may present proposals for inclusion in the proxy statement to be mailed in connection with the 2011 annual meeting of stockholders of the Company, provided such proposals are received by the Company in writing no later than August 31, 2010 and are otherwise in compliance with Commission regulations regarding the inclusion of stockholder proposals in company-sponsored proxy materials. Pursuant to rules adopted by the Commission, if a shareholder intends to propose any matter for a vote at the Company's 2011 annual meeting of stockholders, but fails to notify the Company of that intention by November 14, 2010, then a proxy solicited by the Board of Directors may be voted on that matter in the discretion of the proxy holder, without discussion of the matter in the proxy statement soliciting the proxy and without the matter appearing as a separate item on the proxy card.

OTHER MATTERS

The Company is unaware of any business, other than described in this Proxy Statement, that may be considered at the Annual Meeting. If any other matters should properly come before the Annual Meeting, it is the intention of the persons named in the accompanying form of proxy to vote the proxies held by them in accordance with their best judgment.

To assure the presence of the necessary quorum and to vote on the matters to come before the Annual Meeting, please promptly indicate your choices via the internet, by phone or by mail according to the procedures described on the proxy card. The submission of a proxy via the internet, by phone or by mail does not prevent you from attending and voting at the Annual Meeting.

AVAILABLE INFORMATION

The Company is subject to the informational requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and, in accordance therewith, files reports and other information with the Commission. Any interested party may inspect information filed by the Company, without charge, at the public reference facilities of the Commission at its principal office at 100 F. Street, N.E., Washington, D.C. 20549. Any interested party may obtain copies of all or any portion of the information filed by the Company at prescribed rates from the Public Reference Section of the Commission at its principal office at 100 F. Street, N.E., Washington, D.C. 20549. In addition, the Commission maintains an Internet site that contains reports, proxy and information statements and other information regarding the Company and other registrants that file electronically with the Commission at http://www.sec.gov.

The Company's Common Stock is listed on the NASDAQ Stock Market and trades under the symbol "BSDM".

ADDITIONAL INFORMATION

The Company will provide without charge to any person from whom a proxy is solicited by the Board of Directors, upon the written request of that person, a copy of the Company's Annual Report on Form 10-K for the fiscal year ended August 31, 2009, including the financial statements and schedules thereto (as well as exhibits thereto, if specifically requested), required to be filed with the Commission. Written requests for that information should be directed to the Secretary of the Company at the address on the first page of this proxy statement.

APPENDIX A

BSD MEDICAL CORPORATION

FOURTH AMENDED AND RESTATED
1998 DIRECTOR STOCK PLAN

PART A. PLAN ADMINISTRATION AND ELIGIBILITY

1. Purpose.

The purpose of this Fourth Amended and Restated 1998 Director Stock Plan (the "Plan") of BSD Medical Corporation (the "Company") is to encourage ownership in the Company by outside directors of the Company (each, a "Non-Employee Director," or collectively, the "Non-Employee Directors") whose continued services are considered essential to the Company's continued progress and thus to provide them with a further incentive to remain as directors of the Company.

2. Administration.

The Board of Directors (the "Board") of the Company or any committee (the "Committee") of the Board that will satisfy Rule 16b-3 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and any regulations promulgated thereunder, as from time to time in effect, including any successor rule ("Rule 16b-3"), shall supervise and administer the Plan. The Committee shall consist solely of two or more non-employee directors of the Company, who shall be appointed by the Board. A member of the Board shall be deemed to be a "non-employee director" for purposes of membership on the Committee only if such member satisfies such requirements as the Securities and Exchange Commission may establish for non-employee directors under Rule 16b-3. No member of the Board or the Committee shall receive additional compensation for services in connection with the administration of the Plan.

The Board or the Committee may adopt such rules or guidelines as it deems appropriate to implement the Plan. All questions of interpretation of the Plan or of any shares issued under it shall be determined by the Board or the Committee and such determination shall be final and binding upon all persons having an interest in the Plan.

3. Participation in the Plan.

Each member of the Board who is not an employee of the Company or any of its subsidiaries or affiliates shall receive payment for his or her Annual Retainer (as defined in Section 6 below) under the Plan, and may receive an Option (as defined in Section 6 below), for so long as he or she serves as a director of the Company.

4. Stock Subject to the Plan.

The maximum number of shares of the Company's common stock, par value $0.001 per share ("Common Stock"), which may be issued under the Plan, either as a Common Stock Payment, as defined below, or upon exercise of Options, as defined below, shall be one million seven hundred fifty thousand (1,750,000). The limitation on the number of shares which may be issued under the Plan shall be subject to adjustment as provided in Section 9 of the Plan.

PART B. TERMS OF THE PLAN

5. Effective Date of the Plan.

The Plan (as amended and restated) shall be effective as of the date of shareholder approval. The Plan shall terminate on August 31, 2015, unless earlier terminated by the Board of Directors or the Committee.

6. Terms and Conditions.

a. *Compensation*. During the term of the Plan, the Company shall pay to each Non-Employee Director for each year in which the Non-Employee Director serves as a Non-Employee Director of the Company, annual compensation in the amount of Sixty Thousand Dollars ($60,000) (the "Annual Retainer"); provided, however, that any Non-Employee Director qualifying as a "financial expert" pursuant to Item 407(d)(5) of Regulation S-K promulgated under the Securities Exchange Act of 1934, as amended ("Financial Expert"), shall receive an Annual Retainer of Sixty-Five Thousand Dollars ($65,000). If a Non-Employee Director no longer serves as a director of the Company, for any reason including death or disability, such Non-Employee Director shall be entitled to all unpaid portions of his or her Annual Retainer which shall have accrued (on a daily basis) through the date of such termination.

b. *Cash Payments*. Each Non-Employee Director shall receive annually from the Company, as part of the Annual Retainer, Thirty Thousand Dollars ($30,000) in cash (the "Cash Payment"); provided, however, that the Financial Expert shall receive an annual Cash Payment of Thirty-Five Thousand Dollars ($35,000). The Cash Payment shall be made in arrears in equal semi-annual installments on May 1 and November 1 of each year (or if such day is not a business day, on the next succeeding business day).

c. *Common Stock Payments*; *Number of Shares Subject to Common Stock Payment*. Each Non-Employee Director shall receive annually and automatically from the Company the balance of the Annual Retainer in the form of shares of Common Stock (the "Common Stock Payment"). The Common Stock Payment shall be made on May 1 of each year (or if such day is not a business day, on the next succeeding business day). The number of shares of Common Stock included in the Common Stock Payment shall be determined by dividing Thirty Thousand Dollars ($30,000) by the closing price for the Common Stock as reported by The NASDAQ Stock Market, or other applicable exchange, on May 1 (or, if such day is not a business day, on the next succeeding business day), (the "Fair Market Value"). The amount of the grant shall be equal to the largest number of whole shares determined as follows:

$$\frac{\$30{,}000}{\text{Fair Market Value on Date of Award}} = \text{Number of Shares}$$

Any payment for a fractional share automatically shall be paid in cash based upon the Fair Market Value on the date of the respective award of such fractional share.

d. *Options*.

(i) *Annual Grant*. In addition to the Annual Retainer, during the term of the Plan, the Company may grant to each Non-Employee Director for any year in which the Non-Employee Director serves as a Non-Employee Director of the Company, an option to purchase shares of Common Stock (the "Option"). The Option shall not qualify as an "incentive stock option" as defined in Section 422 of the Internal Revenue Code of 1986.

(ii) *Purchase Price*. The purchase price of the Common Stock issued pursuant to an exercise of the Option shall be the fair market value of the Common Stock at the date the Option is granted (the "Purchase Price"), which such fair market value for purposes of the Purchase Price shall be the closing price of the Company's Common Stock as reported by The NASDAQ Stock Market, or other applicable exchange, on the date of grant. The Purchase Price shall be payable upon the exercise of the Option and may be paid by (i) cash or check payable to the Company, (ii) the delivery to the Company of the number of outstanding shares of Common Stock equal in fair market value to the Purchase Price, or (iii) receiving from the Company in exchange for the Option the number of shares of Common Stock equal in value to the excess of the fair market value of one share of Common Stock of the Company over the Purchase Price per share of Common Stock, multiplied by the number of shares of Common Stock underlying the Option.

(iii) *Term and Vesting*. Except as otherwise set forth herein, unless earlier exercised, each Option shall terminate and expire upon the tenth anniversary of the date such Option is awarded. Twenty percent (20%) of each Option granted to a Non-Employee Director shall vest on each anniversary of the

effective date of the award, provided that the Non-Employee Director shall have remained a director of the Company since the date of the award. In the event a Non-Employee Director ceases to serve as a director of the Company for any reason, any Option granted to a Non-Employee Director which has (i) not vested in accordance with this section shall be forfeited without compensation by the Company, and all rights of the Non-Employee Director in respect of such non-vested portion of the Option shall terminate and be of no further force or effect, and (ii) vested in accordance with this section shall remain exercisable for a period of one hundred eighty days following the last day such Non-Employee Director is a director of the Company, after which period the Option shall terminate and be of no further force or effect.

PART C. GENERAL PROVISIONS

7. Assignments.

The rights and benefits under this Plan may not be assigned, pledged or hypothecated. Upon the death of a Non-Employee Director, such person's rights to receive any payments hereunder will transfer to such person's named beneficiary, if any, or to his or her estate, and any Option to which such beneficiary or estate is entitled and has vested shall remain exercisable by such beneficiary or estate for a period of one hundred eighty days after the death of the Non-Employee Director.

8. Limitation of Rights.

Neither the Plan, nor the issuance of shares of Common Stock nor any other action taken pursuant to the Plan, shall constitute or be evidence of any agreement or understanding, express or implied, that the Company will retain a Non-Employee Director for any period of time, or at any particular rate of compensation.

9. Changes in Present Stock.

In the event of any merger, consolidation, reorganization, recapitalization, stock dividend, stock split, or other change in the corporate structure or capitalization affecting the Company's present Common Stock, at the time of such event the Board or the Committee shall make appropriate adjustments to the number (including the aggregate number specified in Section 4) and kind of shares to be issued under the Plan and the price of any Common Stock Payment and Purchase Price.

10. Amendment of the Plan.

The Board shall have the right to amend, modify, suspend or terminate the Plan at any time for any purpose; provided, that following the approval of the Plan by the Company's shareholders, the Company will seek shareholder approval for any change to the extent required by applicable law, regulation or rule.

11. Compliance with Section 16 of the Exchange Act.

It is the Company's intent that the Plan comply in all respects with Rule 16b-3. If any provision of this Plan is found not to be in compliance with such rule and regulations, the provision shall be deemed null and void, and the remaining provisions of the Plan shall continue in full force and effect. All transactions under this Plan shall be executed in accordance with the requirements of Section 16 of the Exchange Act and regulations promulgated thereunder. The Board or the Committee may, in its sole discretion, modify the terms and conditions of this Plan in response to and consistent with any changes in applicable law, rule or regulation.

12. Governing Law.

This Plan and all determinations made and actions taken pursuant hereto shall be governed by the law of the State of Delaware.

APPENDIX B

BSD MEDICAL CORPORATION
THIRD AMENDED AND RESTATED
1998 STOCK INCENTIVE PLAN

BSD MEDICAL CORPORATION, a Delaware corporation, (the "Company") adopts this Third Amended and Restated Stock Incentive Plan (the "Plan"), effective as of the date of stockholder approval.

1. Purpose. The purpose of this Plan is to enable the Company to attract and retain the services of and provide performance incentives to (1) selected employees, officers and directors of the Company or of any subsidiary of the Company ("Employees") and (2) selected nonemployee agents, consultants, advisors and independent contractors of the Company or any subsidiary.

2. Shares Subject to the Plan. Subject to adjustment as provided below and in paragraph 13, the shares to be offered under the Plan shall consist of shares of the common stock of the Company, par value $.001 per share ("Shares"), and the total number of Shares that may be issued under the Plan shall not exceed six million three hundred thirty seven thousand and three hundred (6,337,300) Shares, all of which may be issued pursuant to the exercise of options granted pursuant to the Plan. The Shares issued under the Plan may be authorized and unissued Shares or reacquired Shares or Shares acquired in the market. If any award granted under the Plan expires, terminates or is canceled, the unissued Shares subject to such award shall again be available under the Plan and if Shares which are awarded under the Plan are forfeited to the Company or repurchased by the Company, that number of Shares shall again be available under the Plan.

3. Effective Date and Duration of Plan.

(a) *Effective Date*. The Plan (as amended and restated) shall be effective as of the date of stockholder approval. Awards may be granted and Shares may be awarded or sold under the Plan at any time after the effective date and before termination of the Plan.

(b) *Duration*. The Plan shall terminate ten years from the date the Plan is adopted by the Board of Directors, or the date the Plan is approved by the shareholders, whichever is earlier, subject to earlier termination by the Board of Directors. The Board of Directors may suspend or terminate the Plan at any time, except with respect to awards then outstanding under the Plan. Termination shall not affect the terms of any outstanding awards.

4. Administration.

(a) *Board of Directors*. The Plan shall be administered by the Board of Directors of the Company, which shall determine and designate from time to time the individuals to whom awards shall be made, the amount of the awards and the other terms and conditions of the awards. Subject to the provisions of the Plan, the Board of Directors may from time to time adopt and amend rules and regulations relating to the administration of the Plan, advance the lapse of any waiting period, accelerate any exercise date, waive or modify any restriction applicable to Shares (except those restrictions imposed by law) and make all other determinations in the judgment of the Board of Directors necessary or desirable for the administration of the Plan. The interpretation and construction of the provisions of the Plan and related agreements by the Board of Directors shall be final and conclusive. The Board of Directors may correct any defect or supply any omission or reconcile any inconsistency in the Plan or in any related agreement in the manner and to the extent it shall deem expedient to carry the Plan into effect, and it shall be the sole and final judge of such expediency.

(b) *Committee*. The Board of Directors may delegate to a committee of the Board of Directors (the "Committee") any or all authority for administration of the Plan. If authority is delegated to a Committee, all references to the Board of Directors in the Plan shall mean and relate to the Committee except (i) as otherwise provided by the Board of Directors and (ii) that only the Board of Directors may amend or terminate the Plan as provided in paragraphs 3 and 14.

(c) *Officer*. The Board of Directors or the Committee, as applicable, may delegate to an executive officer of the Company authority to administer those aspects of the Plan that do not involve the designation of individuals to receive awards or decisions concerning the timing, amounts or other terms of awards. No officer to

whom administrative authority has been delegated pursuant to this provision may waive or modify any restriction applicable to an award to such officer under the Plan.

5. Types of Awards; Eligibility. The Board of Directors may, from time to time, take the following actions, separately or in combination, under the Plan: (i) grant "Incentive Stock Options", as defined in section 422 of the Internal Revenue Code of 1986, as amended (the "Code"), as provided in paragraph 6; (ii) grant options other than Incentive Stock Options ("Non-Statutory Stock Options") as provided in paragraph 6; (iii) award Shares as provided in paragraph 7; (iv) sell Shares subject to restrictions as provided in paragraph 8; (v) grant stock appreciation rights as provided in paragraph 9; (vi) grant cash bonus rights as provided in paragraph 10; (vii) grant Performance-based Rights as provided in paragraph 11 and (viii) grant foreign qualified awards as provided in paragraph 12. Any such awards may be made to Employees, including Employees who are officers or directors, and to other individuals described in paragraph 1 whom the Board of Directors believes have made or will make an important contribution to the Company or any subsidiary of the Company; provided, however, that only employees shall be eligible to receive Incentive Stock Options under the Plan. The Board of Directors shall select the individuals to whom awards shall be made and shall specify the action taken with respect to each individual to whom an award is made. Unless otherwise determined by the Board of Directors with respect to an award, each option, stock appreciation right, cash bonus right or performance-based right granted pursuant to the Plan by its terms shall be nonassignable and nontransferable by the recipient, either voluntarily or by operation of law, except by will or by the laws of descent and distribution of the state or country of the recipient's domicile at the time of death. No fractional Shares shall be issued in connection with any award. In lieu of any fractional Shares, cash may be paid in an amount equal to the value of the fraction or, if the Board of Directors shall determine, the number of Shares may be rounded downward to the next whole share. No Employee may be granted options or stock appreciation rights under the Plan for more than an aggregate of 1,000,000 Shares in any consecutive three-year period.

6. Option Grants. With respect to each option grant, the Board of Directors shall determine the number of Shares subject to the option, the option price, the period of the option, the time or times at which the option may be exercised and whether the option is an Incentive Stock Option or a Non-Statutory Stock Option and any other terms of the grant, all of which shall be set forth in an option agreement between the Company and the optionee. In the case of Incentive Stock Options, all terms shall be consistent with the requirements of the Code and applicable regulations. Upon the exercise of an option, the number of Shares reserved for issuance under the Plan shall be reduced by the number of Shares issued upon exercise of the option less the number of Shares surrendered or withheld in connection with the exercise of the option and the number of Shares surrendered or withheld to satisfy withholding obligations in accordance with paragraph 17.

7. Award of Shares. The Board of Directors may award Shares under the Plan as bonuses or otherwise. The aggregate number of Shares that may be awarded to any single participant pursuant to this provision shall not exceed 1,000,000 Shares. Shares awarded pursuant to this paragraph shall be subject to the terms, conditions, and restrictions determined by the Board of Directors. The Board of Directors may require the recipient to sign an agreement as a condition of the award, but may not require the recipient to pay any monetary consideration other than amounts necessary to satisfy tax withholding requirements. The agreement may contain any other terms, conditions, restrictions, representations and warranties required by the Board of Directors. The certificates representing the Shares awarded shall bear any legends required by the Board of Directors. Upon the issuance of a an award of Shares, the number of Shares available for issuance under the Plan shall be reduced by the number of Shares issued less the number of any Shares surrendered to satisfy withholding obligations in accordance with paragraph 17.

8. Purchased Shares. The Board of Directors may issue Shares under the Plan for such consideration (including promissory notes and services) as determined by the Board of Directors. Shares issued under the Plan shall be subject to the terms, conditions and restrictions determined by the Board of Directors. All Shares issued pursuant to this paragraph 8 shall be subject to a purchase agreement, which shall be executed by the Company and the prospective recipient of the Shares prior to the delivery of certificates representing such Shares to the recipient. The purchase agreement may contain any terms, conditions, restrictions, representations and warranties required by the Board of Directors. The certificates representing the Shares shall bear any legends required by the Board of Directors. Upon the issuance of purchased Shares, the number of Shares available for issuance under the Plan shall be reduced by the number of Shares issued less the number of any Shares surrendered to satisfy withholding obligations in accordance with paragraph 17.

9. Appreciation Rights.

(a) *Grant*. Stock appreciation rights may be granted under the Plan by the Board of Directors, subject to such rules, terms, and conditions as the Board of Directors prescribes.

(b) *Exercise*. Each stock appreciation right shall entitle the holder, upon exercise, to receive from the Company in exchange therefor an amount equal in value to the excess of the fair market value on the date of grant (or, in the case of a stock appreciation right granted in connection with an option, the excess of the fair market value of one Share over the option price per Share under the option to which the stock appreciation right relates), multiplied by the number of Shares covered by the stock appreciation right or the option, or portion thereof, that is surrendered. Payment by the Company upon exercise of a stock appreciation right may be in Shares valued at fair market value, in cash, or partly in Shares and partly in cash, all as determined by the Board of Directors. The Board of Directors may withdraw any stock appreciation right granted under the Plan at any time and may impose any conditions upon the exercise of a stock appreciation right or adopt rules and regulations from time to time affecting the rights of holders of stock appreciation rights. Such rules and regulations may govern the right to exercise stock appreciation rights granted thereafter. Upon the exercise of a stock appreciation right for Shares, the number of Shares available for issuance under the Plan shall be reduced by the number of Shares issued less the number of any Shares surrendered or withheld to satisfy withholding obligations in accordance with paragraph 17. Cash payments for stock appreciation rights shall not reduce the number of Shares available for issuance under the Plan.

10. Cash Bonus Rights. The Board of Directors may grant cash bonus rights under the Plan in connection with (i) options granted or previously granted, (ii) stock appreciation rights granted or previously granted, (iii) Shares awarded or previously awarded and (iv) Shares sold or previously sold under the Plan. Cash bonus rights will be subject to rules, terms and conditions as the Board of Directors may prescribe. The payment of a cash bonus shall not reduce the number of Shares available for issuance under the Plan. A cash bonus right granted in connection with an option will entitle an optionee to a cash bonus when the related option is exercised (or terminates in connection with the exercise of a stock appreciation right related to the option) in whole or in part if, in the sole discretion of the Board of Directors, the bonus right will result in a tax deduction that the Company has sufficient taxable income to use. A cash bonus right granted in connection with an award of Shares pursuant to paragraph 7 or purchase of Shares pursuant to paragraph 8 will entitle the recipient to a cash bonus payable when the award of Shares is made or the Shares are purchased or restrictions, if any, to which the Shares are subject lapse. If the Shares awarded or purchased are subject to restrictions and are repurchased by the Company or forfeited by the holder, the cash bonus right granted in connection with the Shares awarded or purchased shall terminate and may not be exercised.

11. Performance-based Awards. The Board of Directors may grant awards intended to qualify as performance-based compensation under section 162(m) of the Code and the regulations thereunder ("Performance-based Awards"). Performance-based Awards shall be denominated at the time of grant either in Shares ("Stock Performance Awards") or in dollar amounts ("Dollar Performance Awards"). Payment under a Stock Performance Award or a Dollar Performance Award shall be made, at the discretion of the Board of Directors, subject to the limitations set forth in paragraph 2, in Shares ("Performance Shares"), or in cash or any combination thereof. Performance-based Awards shall be subject to the following terms and conditions:

(a) *Award Period*. The Board of Directors shall determine the period of time for which a Performance-based Award is made (the "Award Period").

(b) *Performance Goals and Payment*. The Board of Directors shall establish in writing objectives ("Performance Goals") that must be met by the Company or any subsidiary, division or other unit of the Company ("Business Unit") during the Award Period as a condition to payment being made under the Performance-based Award. The Performance Goals for each award shall be one or more targeted levels of performance with respect to one or more of the following objective measures with respect to the Company or any Business Unit: earnings, earnings per Share, stock price increases, total shareholder return (stock price increase plus dividends), return on equity, return on assets, return on capital, economic value added, revenues, operating income, cash flows or any of the foregoing (determined according to criteria established by the Board of Directors). The Board of Directors shall also establish the number of Performance Shares or the amount of cash payment to be made under a Performance-based Award if the Performance Goals are met or exceeded, including the fixing of a maximum payment (subject to paragraph 11(d)). The Board of Directors may establish other restrictions to payment under a Performance-based Award, such as a continued employment requirement, in addition to satisfaction of the Performance Goals. Some or

all of the Performance Shares may be issued at the time of the award as restricted Shares subject to forfeiture in whole or in part if Performance Goals, or if applicable, other restrictions are not satisfied.

(c) *Computation of Payment*. During or after an Award Period, the performance of the Company or Business Unit, as applicable, during the period shall be measured against the Performance Goals. If the Performance Goals are not met, no payment shall be made under a Performance-based Award. If the Performance Goals are met or exceeded, the Board of Directors shall certify that fact in writing and certify the number of Performance Shares earned or the amount of cash payment to be made under the terms of the Performance-based Award.

(d) *Maximum Awards*. No participant may receive Stock Performance Awards in any fiscal year under which the maximum number of Shares issuable under the award, when aggregated with the Shares issuable under any awards made in the immediately preceding two fiscal years, exceeds 1,000,000 Shares or Dollar Performance Awards in any fiscal year under which the maximum amount of cash payable under the award, when aggregated with the amount of cash payable under awards made in the immediately preceding two fiscal years, exceeds an aggregate of $5,000,000.

(e) *Effect on Shares Available*. The payment of a Performance-based Award in cash shall not reduce the number of Shares available for issuance under the Plan. The number of Shares available for issuance under the Plan shall be reduced by the number of Shares issued upon payment of an award, less the number of Shares surrendered or withheld to satisfy withholding obligations.

12. Foreign Qualified Grants. Awards under the Plan may be granted to such Employees and such other persons described in paragraph 1 residing in foreign jurisdictions as the Board of Directors may determine from time to time. The Board of Directors may adopt such supplements to the Plan as may be necessary to comply with the applicable laws of such foreign jurisdictions and to afford participants favorable treatment under such laws; provided, however, that no award shall be granted under any such supplement with terms that are more beneficial to the participants than the terms permitted by the Plan.

13. Changes in Capital Structure.

(a) *Share Splits and Dividends*. If the number of outstanding Shares of the Company is hereafter increased or decreased or changed into or exchanged for a different number or kind of securities of the Company by reason of any Share split, combination or dividend payable in Shares, recapitalization or reclassification, appropriate adjustment shall be made by the Board of Directors in the number and kind of Shares available for grants under the Plan. In addition, the Board of Directors shall make appropriate adjustment in the number and kind of Shares as to which outstanding options, or portions thereof then unexercised, shall be exercisable, so that the optionee's proportionate interest before and after the occurrence of the event is maintained. Notwithstanding the foregoing, the Board of Directors shall have no obligation to effect any adjustment that would or might result in the issuance of fractional Shares, and any fractional Shares resulting from any adjustment may be disregarded or provided for in any manner determined by the Board of Directors. Any such adjustments made by Board of Directors shall be conclusive.

(b) *Mergers, Reorganizations, Etc*. The Board of Directors may include such terms and conditions, including without limitation, provisions relating to acceleration in the event of a change in control, as it deems appropriate in connection with any award under the Plan with respect to a merger, consolidation, plan of exchange, acquisition of property or stock, separation, reorganization or liquidation to which the Company or a subsidiary is a party or a sale or all or substantially all of the Company's assets (each, a "Transaction"). Notwithstanding the foregoing, in the event of a Transaction, the Board of Directors shall, in its sole discretion and to the extent possible under the structure of the Transaction, select one or the following alternatives for treating outstanding Incentive Stock Options or Non-Statutory Stock Options under the Plan:

(i) Outstanding options shall remain in effect in accordance with their terms; or

(ii) Outstanding options shall be converted into options to purchase securities issued by the company that is surviving or acquiring company in the Transaction. The amount, type of securities subject thereto and exercise price of the converted options shall be determined by the Board of Directors of the Company, taking into account the relative values of the companies involved in the Transaction and the exchange rate, if any, used in determining securities of the surviving corporation to be issued to holders of Shares of the Company. Unless otherwise determined by the Board of Directors, the converted options shall

be vested only to the extent that the vesting requirements relating to options granted hereunder have been satisfied; or

(iii) The Board of Directors shall provide a 30-day period prior to the consummation of the Transaction during which outstanding options may be exercised to the extent then exercisable, and upon the expiration of such 30-day period, all unexercised options shall immediately terminate. The Board of Directors may, in its sole discretion, accelerate the exercisability of options so that they are exercisable in full during such 30-day period.

(c) *Dissolution of the Company*. In the event of the dissolution of the Company, options shall be treated in accordance with paragraph 13(b)(iii).

(d) *Rights Issued by Another Corporation*. The Board of Directors may also grant options, stock appreciation rights, performance units, stock bonuses and cash bonuses and issue restricted stock under the Plan having terms, conditions and provisions that vary from those specified in this Plan provided that any such awards are granted in substitution for, or in connection with the assumption of, existing options, stock appreciation rights, stock bonuses, cash bonuses, restricted stock and performance units granted, awarded or issued by another corporation and assumed or otherwise agreed to be provided for by the Company pursuant to or by reason of a Transaction.

14. Amendment of Plan. The Board of Directors may at any time, and from time to time, modify or amend the Plan in such respects as it shall deem advisable because of changes in the law while the Plan is in effect or for any other reason. Except as provided in paragraphs 9, 10 and 13, however, no change in an award already granted shall be made without the written consent of the holder of such award.

15. Approvals. The obligations of the Company under the Plan are subject to the approval of state and federal authorities or agencies with jurisdiction in the matter. The Company will use its best efforts to take steps required by state or federal law or applicable regulations, including rules and regulations of the Securities and Exchange Commission and any stock exchange on which the Company's Shares may then be listed, in connection with the grants under the Plan. The foregoing notwithstanding, the Company shall not be obligated to issue or deliver Shares under the Plan if such issuance or delivery would violate applicable state or federal securities laws.

16. Employment and Service Rights. Nothing in the Plan or any award pursuant to the Plan shall (i) confer upon any Employee any right to be continued in the employment of the Company or any subsidiary or interfere in any way with the right of the Company or any subsidiary by whom such Employee is employed to terminate such Employee's employment at any time, for any reason, with or without cause, or to decrease such Employee's compensation or benefits, or (ii) confer upon any person engaged by the Company any right to be retained or employed by the Company or to the continuation, extension, renewal, or modification of any compensation, contract, or arrangement with or by the Company.

17. Taxes. Each participant who has received an award under the Plan shall, upon notification of the amount due, pay to the Company in cash amounts necessary to satisfy any applicable federal, state and local withholding requirements. If the participant fails to pay the amount demanded, the Company may withhold that amount from other amounts payable by the Company to the participant including salary, subject to applicable law. With the consent of the Board of Directors, a participant may satisfy this withholding obligation, in whole or in part, by having the Company withhold from any Shares to be issued that number of Shares that would satisfy the amount due or by delivering Shares to the Company to satisfy the withholding amount.

18. Rights as a Shareholder. The recipient of any award under the Plan shall have no rights as a shareholder with respect to any Shares until the date of issue to the recipient of a stock certificate for such Shares. Except as otherwise expressly provided in the Plan, no adjustment shall be made for dividends or other rights for which the record date occurs prior to the date such stock certificate is issued.

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

FORM 10-K

(Mark One)

☑ **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 _____

BSD MEDICAL CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**001-32526**	**75-1590407**
(State or other jurisdiction of incorporation or organization)	*Commission File Number:*	*(I.R.S. Employer Identification No.)*

2188 West 2200 South, Salt Lake City, Utah 84119
(Address of principal executive office) (Zip Code)

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

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

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

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the 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 ☐ 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	☑

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

The aggregate market value of the common stock held by non-affiliates of the registrant 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

TABLE OF CONTENTS

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.

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;
- 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.

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.

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.

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.

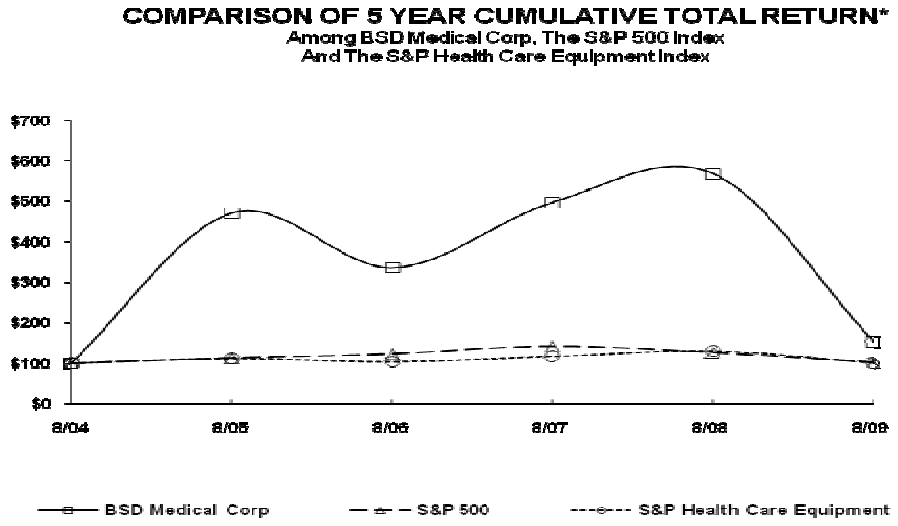
Recent Sales of Unregistered Securities

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.

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, $4,841,713 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, $301,427 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	3,300
Service contracts	78,763	56,968	41,338
Other	65,145	42,093	56,529
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.

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 Third Amended and Restated 1998 Director Stock Plan.
10.6*	BSD Medical Corporation Second Amended and Restated 1998 Stock Incentive Plan. Incorporated by reference to Exhibit B of Amendment No. 1 to the BSD Medical Corporation Schedule 14A, filed January 3, 2008.
10.7*	BSD Medical Corporation Form of Employee Stock Option Grant. Incorporated by reference to Exhibit 10.7 of the BSD Medical Corporation Annual Report on Form 10-K, filed November 14, 2008.
10.8*	BSD Medical Corporation Form of Director Stock Option Grant. Incorporated by reference to Exhibit 10.8 of the BSD Medical Corporation Annual Report on Form 10-K, filed November 14, 2008.
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.
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

Exhibit Number	Description
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

[This page intentionally left blank]

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

	August 31, 2009	August 31, 2008
ASSETS		
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

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

BSD MEDICAL CORPORATION
STATEMENTS OF STOCKHOLDERS' EQUITY
YEARS ENDED AUGUST 31, 2009, 2008 AND 2007

	Common Stock		Additional Paid-in	Deferred	Treasury Stock		Other Comprehensive	Retained Earnings (Accumulated	
	Shares	Amount	Capital	Compensation	Shares	Amount	Income (Loss)	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.

Note 1: Organization and Significant Accounting Policies (Continued)

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.

Note 1: Organization and Significant Accounting Policies (Continued)

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:

	August 31, 2009	August 31, 2008
Accounts receivable:		
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

Note 2: Detail of Certain Balance Sheet Accounts (Continued)

	August 31, 2009	August 31, 2008
Inventories:		
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

	August 31, 2009	August 31, 2008
Accrued liabilities:		
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.

Note 3: Investments (Continued)

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	August 31, 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

Note 9: Income Taxes (Continued)

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

	August 31, 2009	August 31, 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%

Note 10: Stock-Based Compensation (Continued)

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.

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

Note 12: Supplemental Cash Flow Information (Continued)

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.

Note 16: Recent Accounting Pronouncements (Continued)

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.

Note 16: Recent Accounting Pronouncements (Continued)

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.

[This page intentionally left blank]

BSD MEDICAL CORPORATION
2188 West 2200 South, Salt Lake City, UT 84119-1326 USA

www.bsdmedical.com
NASDAQ: BSDM