

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

FORM 10-Q

(Mark One)

Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the quarterly period ended February 28, 2009

Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the transition period from _____ to _____

Commission File No. 001-32526

BSD Medical Corporation

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

75-1590407
(I.R.S. Employer
Identification No.)

2188 West 2200 South
Salt Lake City, Utah 84119
(Address of principal executive offices, including zip code)

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

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 is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

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

As of April 9, 2009, there were 21,858,673 shares of the Registrant's common stock, \$0.001 par value per share, outstanding.

BSD MEDICAL CORPORATION
FORM 10-Q

FOR THE QUARTER ENDED FEBRUARY 28, 2009

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PART I - FINANCIAL INFORMATION

Item 1. Financial Statements

BSD MEDICAL CORPORATION Condensed Balance Sheets (Unaudited)

ASSETS	February 28, 2009	August 31, 2008
Current assets:		
Cash and cash equivalents	\$ 291,112	\$ 1,394,652
Investments	10,108,644	14,487,192
Accounts receivable, net of allowance for doubtful accounts of \$20,000	564,837	439,739
Related party trade accounts receivable	150,212	737,483
Income tax receivable	1,315,014	1,409,996
Inventories, net	1,712,513	1,425,153
Other current assets	43,713	113,829
Total current assets	<u>14,186,045</u>	<u>20,008,044</u>
Property and equipment, net	1,400,471	1,441,524
Patents, net	33,962	37,330
	<u>\$ 15,620,478</u>	<u>\$ 21,486,898</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 207,333	\$ 221,605
Accrued liabilities	569,730	585,777
Customer deposits	230,008	427,677
Deferred revenue – current portion	28,877	41,885
Total current liabilities	<u>1,035,948</u>	<u>1,276,944</u>
Deferred revenue – net of current portion	44,094	54,094
Total liabilities	<u>1,080,042</u>	<u>1,331,038</u>
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, 21,858,673 and 21,388,958 shares issued	21,859	21,389
Additional paid-in capital	27,957,327	27,565,373
Treasury stock, 24,331 shares at cost	(234)	(234)
Other comprehensive loss	(2,180,912)	(2,141,416)
Accumulated deficit	(11,257,604)	(5,289,252)
Total stockholders' equity	<u>14,540,436</u>	<u>20,155,860</u>
	<u>\$ 15,620,478</u>	<u>\$ 21,486,898</u>

See accompanying notes to condensed financial statements

BSD MEDICAL CORPORATION
Condensed Statements of Operations
(Unaudited)

	Three Months Ended		Six Months Ended	
	February 28, 2009	February 29, 2008	February 28, 2009	February 29, 2008
Revenues:				
Sales	\$ 627,701	\$ 640,539	\$ 1,836,097	\$ 1,120,242
Sales to related parties	102,328	835,113	125,496	1,743,138
Total revenues	730,029	1,475,652	1,961,593	2,863,380
Operating costs and expenses:				
Cost of sales	388,630	261,083	989,110	424,064
Cost of related party sales	63,149	330,002	85,321	607,876
Research and development	426,918	433,869	934,141	771,222
Selling, general and administrative	1,500,272	1,434,118	3,010,579	2,828,065
Total operating costs and expenses	2,378,969	2,459,072	5,019,151	4,631,227
Loss from operations	(1,648,940)	(983,420)	(3,057,558)	(1,767,847)
Other income (expense):				
Interest and investment income	263,835	355,640	522,567	544,988
Realized loss on investments	(4,375,587)	-	(4,375,587)	-
Other expense	(29,515)	(47,057)	(63,774)	(110,913)
Total other income (expense)	(4,141,267)	308,583	(3,916,794)	434,075
Loss before income taxes	(5,790,207)	(674,837)	(6,974,352)	(1,333,772)
Income tax benefit	1,255,000	268,000	1,006,000	311,000
Net loss	(4,535,207)	(406,837)	(5,968,352)	(1,022,772)
Other comprehensive income (loss) – unrealized gain (loss) on investments, net of income tax	4,415,083	(1,099,414)	39,496	(1,468,014)
Net comprehensive income (loss)	\$ (120,124)	\$ (1,506,251)	\$ (5,928,856)	\$ (2,490,786)
Loss per common share:				
Basic	\$ (0.21)	\$ (0.02)	\$ (0.27)	\$ (0.05)
Diluted	\$ (0.21)	\$ (0.02)	\$ (0.27)	\$ (0.05)
Weighted average number of shares outstanding:				
Basic	21,850,000	21,321,000	21,809,000	21,316,000
Diluted	21,850,000	21,321,000	21,809,000	21,316,000

See accompanying notes to condensed financial statements

BSD MEDICAL CORPORATION
Condensed Statements of Cash Flows
(Unaudited)

	Six Months Ended	
	February 28, 2009	February 29, 2008
Cash flows from operating activities:		
Net loss	\$ (5,968,352)	\$ (1,022,772)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	66,761	57,954
Stock-based compensation	549,360	365,095
Stock issued for services	37,500	30,000
Realized loss on investments	4,375,587	-
Decrease (increase) in:		
Receivables	462,173	(447,878)
Income tax receivable	(99,454)	(555,000)
Inventories	(287,360)	(105,652)
Other current assets	70,116	62,520
Deferred tax assets	-	244,000
Increase (decrease) in:		
Accounts payable	(14,272)	110,610
Accrued liabilities	(16,047)	(62,605)
Customer deposits	(197,669)	(129,888)
Deferred revenue	(23,008)	(15,444)
	(1,044,665)	(1,469,060)
Cash flows from investing activities:		
Sales of investments	-	4,988,760
Purchases of investments	(36,535)	(2,246,253)
Purchase of property and equipment	(22,340)	(1,226,703)
Increase in patents	-	(20,966)
	(58,875)	1,494,838
Cash flows from financing activities:		
Proceeds from the sale of common stock	-	12,000
	(1,103,540)	37,778
Cash and cash equivalents, beginning of period	1,394,652	416,540
	\$ 291,112	\$ 454,318

See accompanying notes to condensed financial statements

BSD MEDICAL CORPORATION
Notes to Condensed Financial Statements
(Unaudited)

Note 1. Basis of Presentation

The accompanying unaudited condensed balance sheets of BSD Medical Corporation (the “Company”) as of February 28, 2009 and August 31, 2008, the related unaudited condensed statements of operations for the three months and six months ended February 28, 2009 and February 29, 2008, and the related unaudited condensed statements of cash flows for the three months and six months ended February 28, 2009 and February 29, 2008 have been prepared in accordance with U.S. generally accepted accounting principles for interim financial reporting and pursuant to the rules and regulations of the Securities and Exchange Commission (the “SEC”). The condensed financial statements do not include all of the information and footnotes required by U.S. generally accepted accounting principles for complete financial statements. These condensed financial statements should be read in conjunction with the notes thereto, and the financial statements and notes thereto included in our annual report on Form 10-K for the year ended August 31, 2008.

All adjustments (consisting only of normal recurring adjustments) necessary for the fair presentation of our financial position as of February 28, 2009 and August 31, 2008, our results of operations for the three months and six months ended February 28, 2009 and February 29, 2008, and our cash flows for the six months ended February 28, 2009 and February 29, 2008 have been included. The results of operations for the three months and six months ended February 28, 2009 may not be indicative of the results for our fiscal year ending August 31, 2009.

Note 2. Net Income (Loss) Per Common Share

The computation of basic earnings per common share is based on the weighted average number of shares outstanding during the period. The computation of diluted earnings per common share is based on the weighted average number of shares outstanding during the period plus the weighted average common stock equivalents which would arise from the exercise of stock options outstanding using the treasury stock method and the average market price per share during the period.

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

	Three Months Ended		Six Months Ended	
	February 28, 2009	February 29, 2008	February 28, 2009	February 29, 2008
Weighted average number of shares outstanding – basic	21,850,000	21,321,000	21,809,000	21,316,000
Dilutive effect of stock options	-	-	-	-
Weighted average number of shares outstanding – diluted	21,850,000	21,321,000	21,809,000	21,316,000

No stock options are included in the computation of diluted weighted average number of shares for the three months and six months ended February 28, 2009 and February 29, 2008 because the effect would be anti-dilutive. At February 28, 2009, the Company had outstanding options to purchase a total of 1,822,963 common shares of the Company that could have a future dilutive effect on the calculation of earnings per share.

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 February 28, 2009 and 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. The mutual funds are 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 at February 28, 2009 and August 31, 2008:

February 28, 2009				
Type of Security	Amortized Cost	Gross Unrealized Gains	Gross Unrealized (Losses)	Fair Value
Corporate debt funds	\$ 9,951,515	\$ -	\$ (2,180,912)	\$ 7,770,603
Equity income funds	2,315,785	-	-	2,315,785
Other short-term interest-bearing securities	22,256	-	-	22,256
Total	<u>\$ 12,289,556</u>	<u>\$ -</u>	<u>\$ (2,180,912)</u>	<u>\$ 10,108,644</u>

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	<u>\$ 16,628,608</u>	<u>\$ -</u>	<u>\$ (2,141,416)</u>	<u>\$ 14,487,192</u>

The other short-term interest-bearing securities were comprised primarily of money market funds.

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.

Statement 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.

Our investments measured at fair value at February 28, 2009 are as follows:

Description	Quoted Prices In Active Markets For Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Available-for-sale securities	\$ 10,108,644	\$ -	\$ -

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.

In March 2009, after considering the factors outlined above, we liquidated a significant portion of our mutual funds, including 100% of our equity income funds, realizing losses on the transactions. Accordingly, we concluded that the portion of the unrealized loss at February 28, 2009 attributed to the investments sold was other than temporary. We recognized a loss on investments of \$4,375,587 in the condensed statements of operations for the three months and six months ended February 28, 2009. The proceeds from the sales of investments have been deposited in money market funds.

Note 4. Inventories

Inventories consist of the following:

	February 28, 2009	August 31, 2008
Parts and supplies	\$ 1,087,390	\$ 802,956
Work-in-process	553,989	608,391
Finished goods	111,134	53,806
Reserve for obsolete inventory	(40,000)	(40,000)
Inventories, net	<u>\$ 1,712,513</u>	<u>\$ 1,425,153</u>

Note 5. Property and Equipment

Property and equipment consist of the following:

	February 28, 2009	August 31, 2008
Equipment	\$ 1,063,601	\$ 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
	<hr/>	<hr/>
	2,586,397	2,564,057
Less accumulated depreciation	(1,185,926)	(1,122,533)
	<hr/>	<hr/>
Property and equipment, net	\$ 1,400,471	\$ 1,441,524

Note 6. Related Party Transactions

During the three months ended February 28, 2009 and February 29, 2008, we had sales of \$102,328 and \$835,113, respectively, to an entity controlled by a significant stockholder and member of the Board of Directors. These related party transactions represent approximately 14% and 57% of total sales for each respective three-month period.

During the six months ended February 28, 2009 and February 29, 2008, we had sales of \$125,496 and \$1,743,138, respectively, to this entity. These related party transactions represent approximately 6% and 61% of total sales for each respective six-month period.

At February 28, 2009 and August 31, 2008, receivables included \$150,212 and \$737,483, respectively, from this entity.

Note 7. Stock-Based Compensation

We have both an employee and director stock incentive plan, which are described more fully in Note 10 in our 2008 Annual Report on Form 10-K. As of February 28, 2009, we had approximately 1,276,000 shares of common stock reserved for future issuance under the stock incentive plans.

The Company accounts 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 has been allocated to the various categories of operating costs and expenses in a manner similar to the allocation of payroll expense as follows:

	Three Months Ended		Six Months Ended	
	February 28, 2009	February 29, 2008	February 28, 2009	February 29, 2008
Cost of sales	\$ 18,429	\$ 21,148	\$ 36,858	\$ 42,296
Research and development	48,278	35,125	90,607	60,620
Selling, general and administrative	209,480	150,192	421,895	262,179
Total	\$ 276,187	\$ 206,465	\$ 549,360	\$ 365,095

During the six months ended February 28, 2009, we granted 235,000 options to our directors and employees, 150,000 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. These grants account for \$60,313 and \$116,297 of the total stock-based compensation expense for the three months and six months ended February 28, 2009.

Unrecognized stock-based compensation expense expected to be recognized over the estimated weighted-average amortization period of 3.20 years is approximately \$2,800,000 at February 28, 2009.

Our weighted-average assumptions used in the Black-Scholes valuation model for equity awards with time-based vesting provisions granted during the six months ended February 28, 2009 are shown below:

Expected volatility	62.11%
Expected dividends	0%
Expected term	6.0 Years
Risk-free interest rate	3.35%

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.

The weighted-average grant-date fair value of stock options granted during the six months ended February 28, 2009 was \$4.37.

A summary of the time-based stock option awards as of February 28, 2009, and changes during the six months then ended, is as follows:

	Shares	Weighted- Average Exercise Price	Weighted- Average Remaining Contract Term (Years)	Aggregate Intrinsic Value
Outstanding at August 31, 2008	2,182,629	\$ 3.02		
Granted	235,000	7.32		
Exercised	(544,666)	0.96		
Forfeited or expired	(50,000)	7.04		
Outstanding at February 28, 2009	1,822,963	\$ 4.13	7.35	
Exercisable at February 28, 2009	1,047,131	\$ 2.91	6.38	\$ 1,020,764

Note 8. Income Taxes

The income tax (provision) benefit consists of the following:

	Three Months Ended		Six Months Ended	
	February 28, 2009	February 29, 2008	February 28, 2009	February 29, 2008
Current	\$ 1,255,000	\$ 268,000	\$ 1,235,000	\$ 479,000
Deferred	-	-	(229,000)	(168,000)
Total	\$ 1,255,000	\$ 268,000	\$ 1,006,000	\$ 311,000

The current income tax benefit for all periods represents an increase in our income tax receivable resulting from our ability to carry back our taxable loss in that period to offset income taxes previously paid. 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 fiscal 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 six months ended February 28, 2009 and February 29, 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 portions of 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.

Note 9. Supplemental Cash Flow Information

The Company paid \$1,673 and \$0 for interest expense during the six months ended February 28, 2009 and the six months ended February 29, 2008, respectively. The Company paid \$10,561 and \$0 for income taxes during the six months ended February 28, 2009 and the six months ended February 29, 2008, respectively.

During the six months ended February 28, 2009, the Company had the following non-cash financing and investing activities:

- Increased other comprehensive loss and decreased investments by \$4,415,083.
- Increased common stock and decreased additional paid-in capital by \$465.
- Decreased income tax receivable and additional paid-in capital by \$194,436.

During the six months ended February 29, 2008, the Company had the following non-cash financing and investing activities:

- Recorded an increase in additional paid-in capital of \$115,027 and an increase in income tax receivable of \$115,027 related to the tax benefit from the exercise of stock options.
- Increased other comprehensive loss by \$1,468,014, decreased investments by \$1,256,014 and decreased short-term deferred tax asset by \$212,000.
- Increased common stock and decreased additional paid-in capital by \$17.

Note 10. Recent Accounting Pronouncements

On May 9, 2008, the FASB issued Statement of Financial Accounting Standards (“SFAS”) No. 162, *The Hierarchy of Generally Accepted Accounting Principles*. This statement is intended to improve financial reporting by identifying a consistent framework, or hierarchy, for selecting accounting principles to be used in preparing financial statements in conformity with U.S. generally accepted accounting principles (GAAP) for nongovernmental entities. The statement establishes that the GAAP hierarchy should be directed to entities because it is the entity (not its auditor) that is responsible for selecting accounting principles for financial statements that are presented in conformity with GAAP. This statement is effective 60 days following the SEC’s approval of the Public Company Accounting Oversight Board Auditing amendments to AU Section 411, *The Meaning of Present Fairly in Conformity with Generally Accepted Accounting Principles*. We do not believe the implementation of this statement will 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 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. 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 3). 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 11. Subsequent Events

In March 2009, we sold mutual funds with a total cost basis of \$11,077,707, including 100% of our equity income funds, for total proceeds of \$6,393,222, resulting in a realized loss of \$4,684,485. The proceeds have been deposited in money market funds.

Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations

This Management’s Discussion and Analysis of Financial Condition and Results of Operations and other parts of this report 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. The following discussion should be read in conjunction with our financial statements and notes thereto included in this report. We assume no obligation to revise or update any forward-looking statements for any reason, except as required by law.

General

BSD Medical Corporation develops, manufactures, markets and services 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 developments 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. We consider our operations to comprise one business segment.

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 much of the technology that has successfully created a substantial 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. Commercialization of our systems used to treat cancer is our most immediate business objective. Our BSD-2000 and BSD-500 cancer treatment systems are used to treat cancer with heat while boosting the effectiveness of radiation through a number of biological mechanisms. Our MicroThermX-100 Microwave Ablation System is used to ablate soft tissue with heat alone. Current and targeted cancer treatment sites for our systems include cancers of the prostate, breast, head, neck, bladder, cervix, colon/rectum, esophagus, liver, brain, bone, stomach and lung. Our cancer treatment systems have been used to treat thousands of patients throughout the world, and have received much notoriety, including the Frost & Sullivan “Technology Innovation of the Year Award” for cancer therapy devices awarded for the development of the BSD-2000.

Our BSD-2000 systems are used to non-invasively treat cancers located deeper in the body, and are designed to be companions to the estimated 7,500 linear accelerators used to treat cancer through radiation and in combination with chemotherapy treatments. Our BSD-500 systems treat cancers on or near the body surface and those that can be approached through body orifices such as the throat, the rectum, etc., or through interstitial treatment in combination with interstitial radiation (brachytherapy). BSD-500 systems can be used as companions to our BSD-2000 systems and the estimated 2,500 brachytherapy systems installed.

We have also enhanced the BSD-2000 to create the BSD-2000/3D and the BSD-2000/3D/MR. 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. Sophisticated treatment planning software for the BSD-2000/3D has also been developed. 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. We have not yet submitted to the FDA a pre-market approval application for either the BSD-2000/3D or 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 provided we interface the system with an MRI system that also is approved in Europe.

Based on our management team's knowledge of the market, we believe that the fully saturated potential market for these developed cancer therapy systems is in excess of \$5 billion. We also project an after-market opportunity based on service agreements that equates to approximately 15% of the purchase price of our systems per year. We believe that the replacement cycle for our systems, based on advances in software, hardware and other components, will average 5-7 years. Our financial model in the higher production environment of established commercial sales is to achieve a 60% gross margin on systems and an 80% gross margin on service agreements and disposable applicators used with our MicroThermX-100 system.

We have received United States Food and Drug Administration, or FDA, approval to market our commercial version of the BSD-500, and in March 2006, we completed a submission for FDA approval to sell the BSD-2000 in the United States. In August 2007, we successfully concluded a pre-approval and quality system inspection by the FDA. In December 2007, we received a letter from the FDA denying our application for pre-market approval of the BSD 2000 and providing guidance regarding amendments needed to make the BSD-2000 submission approvable. We have subsequently met with the FDA to clarify its requirements and are currently seeking to satisfy these requirements. In April 2008, we submitted a 510(k) premarket notification to the FDA for the MicroThermX-100 system, and in September 2008 we received FDA clearance to market the MicroThermX-100 thermal ablation system in the United States. We have designed our cancer therapy systems such that together they are capable of providing treatment for most solid tumors located virtually anywhere in the body.

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

Critical Accounting Policies and Estimates

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. We provide a reserve allowance for estimated returns. 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 February 28, 2009 and 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: The following table summarizes the number of our systems sold for the respective reporting periods:

	Three Months Ended		Six Months Ended	
	February 28, 2009	February 29, 2008	February 28, 2009	February 29, 2008
BSD-500	1	3	4	5
BSD-2000	1	-	3	-
BSD-2000/3D/MR	-	1	-	2
Total	2	4	7	7

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. 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. Through February 28, 2009, we have not had any sales of our MicroThermX-100 system.

Total revenues for the three months ended February 28, 2009 were \$730,029 compared to \$1,475,652 for the three months ended February 29, 2008, a decrease of \$745,623, or 51%. Total revenues for the six months ended February 28, 2009 were \$1,961,593 compared to \$2,863,380 for the six months ended February 29, 2008, a decrease of \$901,787, or 31%. The overall decrease in revenues in the current fiscal year is due primarily to a decrease in related party sales, with non-related party sales remaining fairly constant, as further discussed below. In addition, we have not sold any higher priced BSD-2000/3D/MR systems in the current fiscal year.

Non-Related Party Sales: In the three months ended February 28, 2009, we earned \$627,701, or 86%, of our revenues from sales to unrelated parties, as compared to \$640,539, or 43%, in the three months ended February 29, 2008. We sold fewer systems in the second quarter of the current fiscal year, but did sell one higher priced system. These sales for the three months ended February 28, 2009 consisted of product sales of \$610,000, service of \$14,701, and other revenue of \$3,000. By comparison, these sales for the three months ended February 29, 2008 consisted of product sales of \$620,700, service of \$9,495, probes of \$600 and other revenues of \$9,744.

In the six months ended February 28, 2009, we earned \$1,836,097, or 94%, of our revenues from sales to unrelated parties, as compared to \$1,120,242, or 39%, in the six months ended February 29, 2008, with the increase due primarily to higher prices per system sold in the current fiscal year. These sales for the six months ended February 28, 2009 consisted of product sales of \$1,789,040, service of \$30,343, probes of \$2,402 and other revenue of \$14,312. By comparison, these sales for the six months ended February 29, 2008 consisted of product sales of \$1,055,700, service of \$24,866, probes of \$14,447 and other revenues of \$25,229.

Related Party Sales: We earned \$102,328, or approximately 14%, of our revenues in the three months ended February 28, 2009 from sales to related parties as compared to \$835,113 or approximately 57%, in the three months ended February 29, 2008. These sales were to Medizin-Technik and decreased in the current fiscal year primarily due to a decrease in the number of systems sold. The sales consisted of sales of component parts of \$65,839, sales of probes of \$8,250 and other revenues of \$28,239 in the three months ended February 29, 2008. We had no related party system sales in the three months ended February 28, 2009. These sales for the three months ended February 29, 2008 consisted of product sales of \$803,200, sales of probes of \$10,725 and other revenues of \$21,188.

In the six months ended February 28, 2009, we earned \$125,496, or approximately 6%, of our revenues from sales to related parties as compared to \$1,743,138 or approximately 61%, in the six months ended February 29, 2008. These sales were to Medizin-Technik and decreased in the current fiscal year primarily due to a decrease in the number of systems sold. The sales consisted of sales of component parts of \$65,839, sales of probes of \$27,713 and other revenues of \$31,944 in the six months ended February 28, 2009. We had no related party system sales in the six months ended February 28, 2009. These sales for the six months ended February 29, 2008 consisted of product sales of \$1,682,712, sales of probes of \$19,425 and other revenues of \$41,001.

Cost of Sales: Cost of sales in the three months ended February 28, 2009 was \$388,630 compared to \$261,083 in the three months ended February 29, 2008, an increase of \$127,547, or 49%. Cost of sales in the six months ended February 28, 2009 was \$989,110 compared to \$424,064 in the six months ended February 29, 2008, an increase of \$565,046, or 133%. This increase resulted primarily from increased product sales in the current fiscal year of systems with higher sales prices and higher cost of sales per system. We also have experienced a modest increase in our manufacturing costs in the current fiscal year, primarily from increased labor costs. Cost of sales as a percentage of sales will

fluctuate from period to period depending on the mix of revenues for the period, the product configuration, pricing and other factors.

Cost of sales to related parties in the three months ended February 28, 2009 decreased to \$63,149 from \$330,002 in the three months ended February 29, 2008 and decreased in the six months ended February 28, 2009 to \$85,321 from \$607,876 in the six months ended February 29, 2008. These decreases resulted primarily from decreases in related party product sales in the current fiscal year. We had no related party system sales in the six months ended February 28, 2009. All of the related party cost of sales was attributable to sales to Medizin-Technik.

Gross Profit: Total gross profit in the three months ended February 28, 2009 was \$278,250 or 38% of total sales, as compared to \$884,567 or 60% of total sales in the three months ended February 29, 2008. Total gross profit in the six months ended February 28, 2009 was \$887,162 or 45% of total sales, as compared to \$1,831,440 or 64% of total sales in the six months ended February 29, 2008. This decrease resulted from the increase in sales of systems in the current year with lower gross margins than the higher priced, higher margin systems sold in the first six months of the prior fiscal year. In addition, margins decreased in the current year as a result of pricing with certain products and the increase in manufacturing costs discussed above. The gross margin percentage will fluctuate from period to period depending on the mix of revenues for the period, the product configuration, pricing and other factors.

Research and Development Expenses: Research and development expenses were \$426,918 for the three months ended February 28, 2009, as compared to \$433,869 for the three months ended February 29, 2008, a decrease of \$6,951, or approximately 2%. Research and development expenses were \$934,141 for the six months ended February 28, 2009, as compared to \$771,222 for the six months ended February 29, 2008, an increase of \$162,919, or approximately 21%. The increase in research and development expenses on a year-to-date basis in the current fiscal year is due primarily to the development of new products and an increase in fees to outside consultants used in support of these development efforts.

Selling General and Administrative Expenses: Selling, general and administrative expenses for the three months ended February 28, 2009 were \$1,500,272, as compared to \$1,434,118 for the three months ended February 29, 2008, an increase of \$66,154, or approximately 5%. Selling, general and administrative expenses for the six months ended February 28, 2009 were \$3,010,579, as compared to \$2,828,065 for the six months ended February 29, 2008, an increase of \$182,514, or approximately 6%. The increase in selling, general and administrative expenses in the current fiscal year is due primarily to an increase in our non-cash stock option expense and board compensation due to the addition of one new director.

Interest and Investment Income: Interest and investment income decreased to \$263,835 in the three months ended February 28, 2009, as compared to \$355,640 for the three months ended February 29, 2008 and decreased to \$522,567 in the six months ended February 28, 2009, as compared to \$544,988 in the six months ended February 29, 2008. 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 year. The proceeds from the sale of our mutual funds in March 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.

Realized Loss on Investments: In March 2009, we sold mutual funds with a total cost basis of \$11,077,707, including 100% of our equity income funds, for total proceeds of \$6,393,222, resulting in a realized loss of \$4,684,485. Accordingly, we concluded that the portion of the unrealized loss at February 28, 2009 attributed to the investments sold was other than temporary. We recognized a loss on investments of \$4,375,587 in the condensed statements of operations for the three months and six months ended February 28, 2009. We had no realized loss on investments in the prior fiscal year.

The recorded value of our investments at February 28, 2009 has been reduced by an unrealized loss of \$2,180,912. 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. To the extent that we further liquidate our investments when they are in an unrealized loss position, or conclude, based on our evaluation, that the unrealized losses are other-than-temporary, we will record realized losses in our statements of operations.

(Provision) Benefit for Income Taxes: The income tax benefit in the three months ended February 28, 2009 and February 29, 2008 was \$1,255,000 and \$268,000, respectively, consisting of a current tax benefit. The income tax benefit of \$1,006,000 in the six months ended February 28, 2009 is comprised of a current income tax benefit of \$1,235,000, partially offset by a deferred income tax provision of \$229,000. By comparison, the income tax benefit for the six months ended February 29, 2008 was \$311,000, comprised of a current benefit of \$479,000, partially offset by a deferred provision of \$168,000. The current income tax benefit in all periods presented represents an increase to our income tax receivable resulting from our ability to carry back our taxable loss in the current period to offset income taxes previously paid.

The current income tax benefit for all periods represents an increase in our income tax receivable resulting from our ability to carry back our taxable loss in that period to offset income taxes previously paid. As a result of the enactment of the American Recovery and Reinvestment Act of 2009 in February 2009, we are able to carry back 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 six months ended February 28, 2009 and February 29, 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.

Net Loss: During the three months ended February 28, 2009 we had a net loss of \$4,535,207, after recording an income tax benefit of \$1,255,000, as compared to a net loss of \$406,837, after recording an income tax benefit of \$268,000 in the three months ended February 29, 2008. During the six months ended February 28, 2009 we had a net loss of \$5,968,352, after recording an income tax benefit of \$1,006,000, as compared to a net loss of \$1,022,772, after recording an income tax benefit of \$311,000 in the six months ended February 29, 2008. The increase in the net loss in the current fiscal year is due primarily to the decrease in total revenues, increase in total operating costs and expenses, and increase in realized loss on investments as discussed above.

Liquidity and Capital Resources

Since inception through February 28, 2009, we have generated an accumulated deficit of \$11,257,604. Included in this amount is a realized loss on investments of \$4,375,587 recorded in the quarter ended February 28, 2009. 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 February 28, 2009, we had cash, cash equivalents and investments totaling \$10,399,756 compared to cash, cash equivalents and investments totaling \$15,881,844 as of August 31, 2008. The recorded value of our investments at February 28, 2009 has been reduced by an unrealized loss of \$2,180,912.

As discussed under Results of Operations, we reported a net loss of \$4,535,207 and \$5,968,352 for the three months and six months ended February 28, 2009. The net loss for both periods includes a non-cash loss on investments of \$4,375,587 and significant non-cash stock-based compensation expense from our stock options. We have, however, reduced the amount of net cash used in operating activities for the six months ended February 28, 2009 to \$1,044,665 from \$1,469,060 for the six months ended February 29, 2008.

During the six months ended February 28, 2009, we used cash of \$1,044,665 in operating activities, primarily as a result of our net loss partially offset by the non-cash realized loss on investments, stock-based compensation and other non-cash expenses, increase in income tax receivable of \$99,454, increase in inventories of \$287,360, decrease in accounts payable of \$14,272, decrease in accrued liabilities of \$16,047, decrease in customer deposits of \$197,669, and decrease in deferred revenue of \$23,008, partially offset by a decrease in receivables of \$462,173 and a decrease in other current assets of \$70,116. By comparison, net cash used in operating activities was \$1,469,060 during the six months ended February 29, 2008, which included an increase in accounts receivable of \$447,878, increase in income tax receivable of \$555,000, increase in inventories of \$105,652, decrease in customer deposits of \$129,888, and decrease in deferred revenue of \$15,444, partially offset by a decrease in other current assets of \$62,520, decrease in deferred tax assets of \$244,000 and an increase in accounts payable of \$110,610.

Net cash used in investing activities for the six months ended February 28, 2009 was \$58,875, consisting of the net purchase of investments of \$36,535 and the purchase of property and equipment of \$22,340. For the six months ended February 29, 2008, net cash provided by investing activities was \$1,494,838, resulting from the net sale of investments of \$2,742,507, partially offset by the purchase of property and equipment of \$1,226,703 and the increase in patents of \$20,966.

No net cash was provided by financing activities for the six months ended February 28, 2009. Net cash provided by financing activities consisted of proceeds from the sale of common stock through the exercise of stock options of \$12,000 in the six months ended February 29, 2008.

We expect to incur additional expenses related to the commercial introduction of our systems, due to additional participation at trade shows, expenditures on publicity, additional travel, increased sales salaries and commissions and other related expenses. In addition, we anticipate that we will incur increased expenses related to seeking governmental and regulatory approvals for our products and continued expenses related to corporate governance and compliance with the Sarbanes-Oxley Act of 2002, during the remainder of fiscal 2009.

We believe we can cover any cash requirements with cost cutting or available cash. If we cannot cover any such cash shortfall with cost cutting or available cash, we would need to obtain additional financing. Due to recent turmoil 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.

As of February 28, 2009, we have no significant commitments for the purchase of property and equipment.

We believe that our current cash and cash equivalents, investments, income tax refunds receivable, and expected cash provided from operating activities will be sufficient to fund our operations for the next twelve months. If the global credit market continues to deteriorate, our investment portfolio may be further impacted and we could determine our remaining investments have experienced other-than-

temporary declines in fair value, which could further adversely impact our financial results and decrease the amount of the investments available to fund our operations.

At February 28, 2009, the remaining corporate debt funds that were not liquidated in March 2009 had a cost basis of approximately \$5.5 million, a market value of approximately \$3.3 million and an unrealized loss of \$2.2 million. These corporate debt funds are comprised of a liquid, managed portfolio of mutual funds that are invested in senior, secured corporate debt with floating interest rates. The primary investment objective of these mutual funds is to provide a high level of income. The senior loans are loans made by U.S. banks and other financial institutions to large corporate customers, and typically these loans are the most senior source of capital in a borrower's capital structure and have certain of the borrower's assets and/or stock pledged as collateral. The debt obligations of the funds are considered below investment grade, and therefore, speculative because of the increased credit risk of their issuers. Economic and other market factors may reduce demand for certain senior loans of the funds, which may negatively impact net asset value. The senior loans are also subject to the risk of increases in prevailing interest rates, although floating-rate securities are less susceptible to this risk than other fixed-rate obligations. However, because floating rates on senior loans only reset periodically changes in prevailing interest rates may cause some fluctuation in the funds' net asset value. We do not utilize derivative instruments to offset the exposure to interest rate changes.

We currently have the intent, and we believe the ability, to hold these investments until a recovery of unrealized losses, which may be at maturity of the debt within the debt funds. However, there can be no assurance that we will recover the unrealized losses. Furthermore, we continually review our investments to determine whether a decline in fair value below the cost basis is other than temporary. As discussed previously, we consider several factors, evaluated both individually and collectively, with the evaluation involving a high level of complexity and judgment. To the extent that we further liquidate the corporate debt funds when they are in an unrealized loss position, or conclude, based on our evaluation, that the unrealized losses are other-than-temporary, we will record realized losses in our statements of operations. This could have a material impact on the results of our operations.

The Company has no off balance sheet arrangements as of February 28, 2009.

Recent Accounting Pronouncements

On May 9, 2008, the FASB issued Statement of Financial Accounting Standards ("SFAS") No. 162, *The Hierarchy of Generally Accepted Accounting Principles*. This statement is intended to improve financial reporting by identifying a consistent framework, or hierarchy, for selecting accounting principles to be used in preparing financial statements in conformity with U.S. generally accepted accounting principles (GAAP) for nongovernmental entities. The statement establishes that the GAAP hierarchy should be directed to entities because it is the entity (not its auditor) that is responsible for selecting accounting principles for financial statements that are presented in conformity with GAAP. This statement is effective 60 days following the SEC's approval of the Public Company Accounting Oversight Board Auditing amendments to AU Section 411, *The Meaning of Present Fairly in Conformity with Generally Accepted Accounting Principles*. We do not believe the implementation of this statement will 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 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. 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. See Note 3 to our condensed financial statements for the expanded disclosure provided as a result of implementing SFAS No. 157 in the current fiscal year. 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” 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 the BSD-2000, BSD 500 and MicroThermX-100 systems;
- our expectations to further expand our developments to treat other diseases and medical conditions;
- our belief that the implementation of recent accounting pronouncements will not have a material impact on our financial statements;
- our expectations that in a higher production environment of established commercial sales we could achieve a 60% gross margin on system sales and an 80% gross margin on service agreements and disposable applicators used with our MicroThermX-100 system;
- our belief concerning the market potential for developed cancer therapy systems;
- our expectation that our interest and investment income for the foreseeable future will be substantially less than previously earned on our mutual funds.
- our expectations related to the after-market opportunity for service agreements;
- our expectations related to the replacement cycle for our systems;
- our expectations that we will incur increased expenses related to seeking governmental and regulatory approvals for our products;
- our expectations regarding FDA approvals relating to the BSD-2000 system;
- our belief that our technology has application for additional approaches to treating cancer and for other medical purposes;
- our expectations related to the amount of expenses we will incur for the commercial introduction of our systems;
- our expectation that we will incur increased expenses related to our corporate governance and compliance with the Sarbanes-Oxley Act of 2002;
- our belief that we can cover any cash shortfall with cost cutting or available cash;

- our belief that our current working capital, investments and cash from operations will be sufficient to finance our operations through working capital and capital resources needs for the next twelve months; and
- our intent to hold certain of our investments until a recovery of unrealized losses has occurred.

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 our Annual Report on Form 10-K for the year ended August 31, 2008 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 4. Controls and Procedures

Evaluation of disclosure controls and procedures.

As of the end of the period covered by this report, we conducted an evaluation, under the supervision and with the participation of our management including our principal executive officer and principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) or 15d-15(e) under the Securities Exchange Act of 1934 (the "Exchange Act")). Based on this evaluation, the principal executive officer and principal financial officer concluded that, as of the end of the period covered by this report, our disclosure controls and procedures were effective in ensuring that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in applicable rules and forms and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, in a manner that allows timely decisions regarding required disclosure.

Changes in internal controls over financial reporting.

There was no change in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) during our most recently completed fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1A. Risk Factors

In addition to the other information set forth in this report, you should carefully consider the factors discussed in Item 1A – “Risk Factors” in our Annual Report on Form 10-K for the year ended August 31, 2008, which could materially affect our business, financial condition or future results of operations.

Item 4. Submission of Matters to a Vote of Security Holders

The annual meeting of shareholders of the Company was held on February 4, 2009. The shareholders voted, either in person or by proxy, on the following proposals. The directors listed below were elected, and the other proposals submitted to a vote of the shareholders were approved, with the results of the shareholder vote as follows:

- 1 The following seven directors were elected to hold office until the next annual meeting or until their successors are duly elected and qualified:

	<u>Votes For</u>	<u>Votes Withheld</u>	<u>Total Voted</u>
Paul F. Turner	16,722,587	571,462	17,294,049
Hyrum A. Mead	16,722,079	571,970	17,294,049
Gerhard W. Sennewald	16,737,619	556,430	17,294,049
Steven G. Stewart	17,215,491	78,558	17,294,049
Michael Nobel	17,218,189	75,860	17,294,049
Douglas P. Boyd	17,216,439	77,610	17,294,049
Timothy C. McQuay	17,216,439	77,610	17,294,049

2. To ratify the selection of Tanner LC as the Company's independent registered public accountants for the fiscal year ending August 31, 2009:

For	17,201,748
Against	56,256
Abstain	36,045

3. To transact such other business as may properly come before the Annual Meeting or any adjournment or postponement thereof:

For	16,539,777
Against	625,542
Abstain	128,729

Item 6. Exhibits

The following exhibits are filed as part of this report:

<u>Exhibit No.</u>	<u>Description of Exhibit</u>
10.1	Exclusive Distribution Agreement with Sennewald/Medizin-Technik GmbH
31.1	Certification of the Principal Executive Officer Required Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of the Principal Accounting Officer Required Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification of Principal Executive Officer Required Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification of Principal Accounting Officer Required Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

SIGNATURES

Pursuant to the requirements 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: April 9, 2009

/s/ Harold R. Wolcott

Harold R. Wolcott
President (Principal Executive Officer)

Date: April 9, 2009

/s/ Dennis P. Gauger

Dennis P. Gauger
Chief Financial Officer (Principal Accounting Officer)

**Certification of the Principal Executive Officer
Pursuant to Section 302 of the Sarbanes – Oxley Act of 2002**

I, Harold R. Wolcott, certify that:

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

Date: April 9, 2009

By: /s/ Harold R. Wolcott
Harold R. Wolcott
President
(Principal Executive Officer)

**Certification of the Principal Accounting Officer
Pursuant to Section 302 of the Sarbanes – Oxley Act of 2002**

I, Dennis P. Gauger, certify that:

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

Date: April 9, 2009

By: /s/ Dennis P. Gauger
Dennis P. Gauger
Chief Financial Officer
(Principal Accounting Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of BSD Medical Corporation (the “Company”) on Form 10-Q for the quarterly period ended February 28, 2009, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Harold R. Wolcott, President (Principal Executive Officer) of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ Harold R. Wolcott
Harold R. Wolcott
President (Principal Executive Officer)
April 9, 2009

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of BSD Medical Corporation (the “Company”) on Form 10-Q for the quarterly period ended February 28, 2009, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Dennis P. Gauger, Chief Financial Officer (Principal Financial Officer) of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ Dennis P. Gauger
Dennis P. Gauger
Chief Financial Officer
(Principal Accounting Officer)
April 9, 2009