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 June 30, 2003

OR

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

For the transition period from to

Commission file number 0-32501

MacroPore Biosurgery, Inc.

(Exact name of registrant as specified in its charter.)

Delaware	**33-0827593**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
6740 Top Gun Street, San Diego, California	**92121**
(Address of principal executive offices)	(Zip code)

Registrant's telephone number, including area code: **(858) 458-0900**

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 o

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Exchange Act). YES o NO ☒

As of July 22, 2003, there were 14,585,599 shares of MacroPore Biosurgery, Inc. common stock outstanding.

MACROPORE BIOSURGERY, INC.

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PART I FINANCIAL INFORMATION

Item 1. Financial Statements

Independent Accountants' Review Report

The Board of Directors and Shareholders
MacroPore Biosurgery, Inc.:

We have reviewed the accompanying consolidated condensed balance sheet of MacroPore Biosurgery, Inc. and subsidiaries as of June 30, 2003, and the related consolidated condensed statements of operations and comprehensive income (loss) for the three and six months ended June 30, 2003 and 2002, and the consolidated condensed statements of cash flows for the six months ended June 30, 2003 and 2002. These condensed consolidated financial statements are the responsibility of the Company's management.

We conducted our reviews in accordance with standards established by the American Institute of Certified Public Accountants. A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with auditing standards generally accepted in the United States of America, the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

Based on our reviews, we are not aware of any material modifications that should be made to the consolidated condensed financial statements referred to above for them to be in conformity with accounting principles generally accepted in the United States of America.

We have previously audited, in accordance with auditing standards generally accepted in the United States of America, the consolidated balance sheet of MacroPore Biosurgery, Inc. and subsidiaries as of December 31, 2002, and the related consolidated statements of operations and comprehensive income (loss), stockholders' equity, and cash flows for the year then ended (not presented herein); and in our report dated March 7, 2003, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying consolidated condensed balance sheet as of December 31, 2002, is fairly stated, in all material respects, in relation to the consolidated balance sheet from which it has been derived.

/s/ KPMG LLP

San Diego, California
August 11, 2003

MACROPORE BIOSURGERY, INC.
CONSOLIDATED CONDENSED BALANCE SHEETS

	June 30, 2003 (Unaudited)	December 31, 2002
Assets		
Current assets:		
Cash and cash equivalents	$ 2,088,000	$ 5,108,000
Short-term investments, available-for-sale	16,608,000	19,875,000
Accounts receivable, net of allowance for doubtful accounts of $65,000 and $50,000 in 2003 and 2002, respectively	1,186,000	1,238,000
Inventories	1,054,000	1,150,000
Other current assets	575,000	843,000
Total current assets	21,511,000	28,214,000
Property and equipment, net	3,471,000	3,626,000
Other assets	443,000	562,000
Goodwill and intangibles, net	7,195,000	6,917,000
Total assets	$ 32,620,000	$ 39,319,000
Liabilities and Stockholders' Equity		

Current liabilities:		
Accounts payable and accrued expenses	$ 1,994,000	$ 2,502,000
Current portion of long-term obligations	426,000	410,000
Total current liabilities	2,420,000	2,912,000
Deferred gain on sale of assets, related party	8,798,000	9,623,000
Deferred revenue	22,000	19,000
Long-term obligations, less current portion	581,000	770,000
Total liabilities	11,821,000	13,324,000
Stockholders' equity:		
Preferred stock, $0.001 par value; 5,000,000 shares authorized; -0- shares issued and outstanding in 2003 and 2002	—	—
Common stock, $0.001 par value; 95,000,000 shares authorized; 16,717,581 and 16,646,664 shares issued and 14,535,599 and 14,527,681 shares outstanding in 2003 and 2002, respectively	17,000	17,000
Additional paid-in capital	74,750,000	74,730,000
Unearned compensation	(635,000)	(1,057,000)
Accumulated deficit	(45,441,000)	(40,102,000)
Treasury stock, at cost	(7,999,000)	(7,752,000)
Accumulated other comprehensive income	107,000	159,000
Total stockholders' equity	20,799,000	25,995,000
Total liabilities and stockholders' equity	$ 32,620,000	$ 39,319,000

SEE NOTES TO UNAUDITED CONSOLIDATED CONDENSED FINANCIAL STATEMENTS

MACROPORE BIOSURGERY, INC.
CONSOLIDATED CONDENSED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (LOSS)
(UNAUDITED)

	For the Three Months Ended June 30,		For the Six Months Ended June 30,	
	2003	2002	2003	2002
Revenues:				
Sales to related party	$ 2,585,000	$ 2,700,000	$ 4,191,000	$ 3,797,000
Sales to third parties	318,000	7,000	641,000	20,000
	2,903,000	2,707,000	4,832,000	3,817,000
Cost of revenues:				
Cost of revenues (including stock based compensation expense of $3,000 for the three months ended June 30, 2003 and 2002; $6,000 and $7,000 for the six months ended June 30, 2003 and 2002, respectively)	787,000	981,000	1,426,000	1,531,000
Gross profit	2,116,000	1,726,000	3,406,000	2,286,000
Operating expenses:				
Research and development, excluding stock based compensation expense of $20,000 and $25,000 for the three months ended June 30, 2003 and 2002, respectively; $39,000 and $160,000 for the six months ended June 30, 2003 and 2002, respectively	2,107,000	1,388,000	4,258,000	2,873,000
Sales and marketing, excluding stock based compensation expense of $18,000 and $34,000 for the three months ended June 30, 2003 and 2002, respectively; $36,000 and $67,000 for the six months ended June 30, 2003 and 2002, respectively	1,004,000	1,026,000	2,299,000	1,697,000
General and administrative, excluding stock based compensation expense of $174,000 and $216,000 for the three months ended June 30, 2003 and 2002, respectively; $350,000 and $517,000 for the six months ended June 30, 2003 and 2002, respectively	951,000	855,000	1,999,000	1,968,000
Stock based compensation (excluding cost of revenues stock based compensation)	212,000	275,000	425,000	744,000
Total operating expenses	4,274,000	3,544,000	8,981,000	7,282,000
Other income (expense):				

Interest income	105,000	263,000	247,000	637,000
Interest and other (expenses) income, net	(6,000)	9,000	(11,000)	(65,000)
Equity loss in investment	—	(57,000)	—	(113,000)
Net loss	(2,059,000)	(1,603,000)	(5,339,000)	(4,537,000)
Other comprehensive income (loss): unrealized holding (loss) gain	(11,000)	129,000	(52,000)	(172,000)
Comprehensive loss	$ (2,070,000)	$ (1,474,000)	$ (5,391,000)	$ (4,709,000)
Basic and diluted net loss per share	$ (0.14)	$ (0.11)	$ (0.37)	$ (0.31)
Shares used in calculating basic and diluted net loss per share	14,540,734	14,290,825	14,532,716	14,466,216

SEE NOTES TO UNAUDITED CONSOLIDATED CONDENSED FINANCIAL STATEMENTS

MACROPORE BIOSURGERY, INC.
CONSOLIDATED CONDENSED STATEMENTS OF CASH FLOWS
(UNAUDITED)

	Six Months Ended June 30,	
	2003	**2002**
Cash flows from operating activities:		
Net loss	$ (5,339,000)	$ (4,537,000)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	822,000	723,000
Amortization of gain on sale of assets, related party	(788,000)	—
Stock based compensation	431,000	751,000
Interest income, related party	—	(9,000)
Equity loss in investment	—	113,000
Increases (decreases) in cash caused by changes in operating assets and liabilities:		
Accounts receivable	52,000	(1,312,000)
Inventories	96,000	(477,000)
Other current assets	268,000	281,000
Other assets	73,000	57,000
Accounts payable and accrued expenses	(577,000)	52,000
Deferred revenue	3,000	—
Deferred revenue from license agreement, related party	—	(150,000)
Net cash used in operating activities	(4,959,000)	(4,508,000)
Cash flows from investing activities:		
Proceeds from the sale and maturity of short-term investments	29,106,000	33,972,000
Purchases of short-term investments	(25,892,000)	(24,421,000)
Purchases of property and equipment	(531,000)	(761,000)
Long-term notes receivable, related party	—	(478,000)
Cost of sale of assets, related party	(37,000)	—
Acquisition costs	(344,000)	—
Proceeds from the sale of impaired assets	46,000	—
Net cash provided by investing activities	2,348,000	8,312,000
Cash flows from financing activities:		
Principal payments on capital leases	—	(58,000)
Principal payments on long-term obligations	(173,000)	(225,000)
Proceeds from the exercise of employee stock options	11,000	11,000
Purchase of treasury stock	(249,000)	(2,783,000)
Proceeds from sale of treasury stock	2,000	—
Net cash used in financing activities	(409,000)	(3,055,000)
Net (decrease) increase in cash	(3,020,000)	749,000
Cash and cash equivalents at beginning of period	5,108,000	2,700,000
Cash and cash equivalents at end of period	$ 2,088,000	$ 3,449,000
Supplemental disclosure of cash flows information:		
Cash paid during period for:		

Interest	$ 63,000	$ 122,000
Taxes	11,000	800
Supplemental schedule of non-cash investing activities:		
Increase in cost of acquisition (note 9)	$ (361,000)	$ —

SEE NOTES TO UNAUDITED CONSOLIDATED CONDENSED FINANCIAL STATEMENTS

MACROPORE BIOSURGERY, INC.
NOTES TO CONSOLIDATED CONDENSED FINANCIAL STATEMENTS
JUNE 30, 2003
(UNAUDITED)

1. Basis of Presentation

The accompanying unaudited consolidated condensed financial statements as of and for the three and six months ended June 30, 2003 and 2002 have been prepared in accordance with accounting principles generally accepted in the United States for interim financial information. Accordingly, they do not include all of the information and footnotes required by accounting principles generally accepted in the United States for audited financial statements. The consolidated condensed balance sheet at December 31, 2002 has been derived from the audited financial statements at that date, but does not include all of the information and footnotes required by accounting principles generally accepted in the United States for complete financial statements. In the opinion of management, all adjustments (consisting of normal recurring adjustments) considered necessary for a fair presentation of the financial position and results of operations of MacroPore Biosurgery, Inc. ("MacroPore" or the "Company") have been included. Operating results for the three and six months ended June 30, 2003 are not necessarily indicative of the results that may be expected for the year ending December 31, 2003. For further information, refer to the consolidated financial statements for the year ended December 31, 2002 and footnotes thereto which were included in the Company's report on Form 10-K, dated March 28, 2003.

2. Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions affecting the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates. The Company's significant estimates and accounting policies are revenue recognition, allowance for doubtful accounts, inventory provision and valuation of deferred income taxes.

3. Stock Based Compensation

The Company has adopted the disclosure-only provisions of Financial Accounting Standard Board (FASB) Statement of Financial Accounting Standards (SFAS) No. 123, "Accounting for Stock Based Compensation." Accordingly, the Company accounts for its stock based compensation plan under the provisions of Accounting Principles Board (APB) opinion No. 25, "Accounting for Stock Issued to Employees" and related interpretations under which compensation cost is measured by the excess, if any, of the fair market value of the Company's common stock at the date of grant over the exercise price of the option (intrinsic value method). Compensation cost is amortized using the straight-line method over the related vesting periods. Unearned stock based compensation costs for awards that are forfeited are reversed against compensation expense in the period of forfeiture. Stock based awards issued to non-employees are accounted for using a fair value method and are remeasured to estimated fair value at each period end until the earlier of the date that performance by the counterparty is complete or the awards are fully vested.

As required by SFAS No. 123, the Company has determined the pro forma information as if the Company had accounted for stock options under the fair value method prescribed by SFAS No. 123. The Company used the Black-Scholes option pricing model to determine fair value using the

following weighted average assumptions: risk free interest rates ranging from 2.84% to 6.7%, dividend yield of zero, expected market price volatility factor of 60% to 100% and a weighted average expected life of the options ranging from four to eight years. Had compensation cost for stock options been determined consistent with SFAS No. 123, the Company's net loss and related per share amounts on a pro forma basis would be as follows:

	For the Three Months Ended June 30,		For the Six Months Ended June 30,	
	2003	2002	2003	2002
Net loss:				
As reported	$ (2,059,000)	$ (1,603,000)	$ (5,339,000)	$ (4,537,000)
Add: Stock based employee compensation expense included in reporting net loss, net of related tax effects	215,000	264,000	431,000	620,000
Deduct: Total stock based employee compensation expense determined under fair value method for all awards, net of related tax effects	(1,161,000)	(1,074,000)	(2,504,000)	(2,418,000)
Pro forma	$ (3,005,000)	$ (2,413,000)	$ (7,412,000)	$ (6,335,000)
Loss per common share:				
As reported	$ (0.14)	$ (0.11)	$ (0.37)	$ (0.31)
Pro forma	(0.21)	$ (0.17)	$ (0.51)	$ (0.44)

The pro forma compensation expense may not be representative of such expense in future periods.

4. Short-Term Investments

Investments are accounted for in accordance with SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities," which requires that the Company determine the appropriate classification of investments at the time of purchase based on management's intent. The Company's short-term investments are classified as available-for-sale investments and are stated at fair value, with net unrealized gains or losses, if any, net of tax, reported as a separate component of stockholders' equity. Realized gains or losses from the sale of investments, interest income and dividends are included in interest income in the accompanying consolidated statements of operations and comprehensive income (loss).

Management reviews the carrying values of its investments and writes down such investments to estimated fair value by a charge to operations when such review results in management's determination that an investment's impairment is considered to be other than temporary. The cost of securities sold is based on the specific identification method.

5. Inventories

Inventories include the cost of material, labor and overhead, and are stated at the lower of average

cost, determined on the first-in, first-out (FIFO) method, or market. The Company periodically evaluates its on-hand stock and makes appropriate provision for any stock deemed excess or obsolete.

6. Long-Lived Assets

The Company assesses potential impairments to its long-lived assets when there is a change in circumstances that indicate carrying values of assets may not be recovered. An impairment loss is recognized when the undiscounted cash flows expected to be generated by an asset is less than its carrying amount. Any required impairment loss would be measured as the amount by which the asset's carrying value exceeds its fair value, and would be recorded as a reduction in the carrying value of the related asset and a charge to operating expense.

7. Revenue Recognition

The Company sells its products to hospitals and distributors. Revenue from sales to hospitals is recognized upon delivery of the product. The Company has agreements with its distributors that title and risk of loss pass upon shipment of the products to the distributor. The Company warrants that its products are free from manufacturing defects at the time of shipment to the distributor. Revenue is recognized upon shipment of products to distributors following receipt and acceptance of a distributor's purchase order.

Revenue from license agreements is recognized ratably over the term of the agreement, provided no significant obligations remain.

The Company recognizes revenue from the collection and storage of Stem Cell rich adipose tissue. In its StemBank product line, the Company recognizes revenue when the collection procedure is performed and the adipose tissue is received by the Company; fees from the procedure are fixed and determinable, and payment is probable. The Company uses the residual method to recognize revenue when a procedure includes elements to be delivered at a future date if evidence of the fair value of all undelivered elements exists. If evidence of the fair value of the undelivered elements does not exist, revenue is deferred on all elements and recognized when all elements are delivered.

The Company recognizes revenue from Stem Cell storage services as the services are performed.

The Company earns revenue for performing services under development agreements. Milestone payments are considered to be payments received for the accomplishment of a discrete, substantive earnings event. The non-refundable payment arising from the achievement of a defined milestone is recognized as revenue when the performance criteria for that milestone have been met if substantive effort is required to achieve the milestone, the amount of the milestone payments appears reasonably commensurate with the effort expended and collection of the payment is reasonably assured. Income earned under development agreements are classified under revenues in the Company's statements of operations. The costs associated with development agreements are recorded as research and development expense.

Additionally, the Company earns revenue from contracted development arrangements. These arrangements are generally time and material arrangements and accordingly any revenue is recognized as services are performed. Any costs related to these arrangements are recognized as cost of revenue as these costs are incurred.

In September 2002, the Company entered into various agreements with Medtronic, Inc. and a related subsidiary. The net proceeds received in the Agreements was recorded as a deferred gain on sale of

assets, related party, until such a time as the technology and know how transfer is completed pursuant to the terms of the Agreement. Upon successfully completing its requirements under these provisions of the Agreement, the Company will recognize the net gain on the sale in the statement of operations. Additionally, the Company will recognize a component of the deferred gain related to the sale of craniomaxillofacial product to Medtronic under the Company's backup supply arrangement, which provides for sales of the craniomaxillofacial product to Medtronic at cost. Discounts from previously agreed prices have been recorded as revenues and as a reduction to the deferred gain.

A majority of the Company's revenues are from Medtronic, Inc., under a Distribution Agreement dated January 5, 2000 and amended December 22, 2000 and October 8, 2002, as well as a Development and Supply Agreement dated January 5, 2000 and amended December 22, 2000 and September 30, 2002.

8. Earnings (Loss) Per Share

The Company computes earnings (loss) per share based on the provision of SFAS No. 128 "Earnings Per Share." Basic per share data is computed by dividing income (loss) available to common stockholders by the weighted average number of common shares outstanding during the period. Diluted per share data is computed by dividing net income (loss) available to common stockholders by the weighted average number of common shares outstanding during the period increased to include, if dilutive, the number of additional common share equivalents that would have been outstanding if potential common shares had been issued using the treasury stock method.

The Company has excluded all potentially dilutive securities from the calculation of diluted loss per share attributable to common stockholders for the three and six months ended June 30, 2003 and 2002 as their inclusion would be antidilutive. The number of potentially dilutive common shares excluded from the calculations of diluted loss per share were 4,965,246 and 4,891,259 for the three and six months ended June 30, 2003 and 4,129,728 and 3,996,419 for the three and six months ended June 30, 2002.

9. Loss on Unused Office Space

In conjunction with the acquisition of StemSource in 2002, the Company was left with significant excess facility capacity associated with a non-cancelable 45 month operating lease commitment. The initial determination and computation of the initial provision for loss were performed in accordance with EITF 95-3, "Recognition of Liabilities in Connection with a Purchase Business Combination".

As of December 31, 2002, the Company had met the criteria of EITF 95-3 with regards to formulating a plan to exit an activity. Additionally, the cost represented an amount to be incurred by the combined company under a contractual obligation of the acquired company that existed prior to the consummation date and continued after the plan was scheduled to be completed with no economic benefit to the combined company.

As such, the initial provision for loss totaling $210,000 was recorded as a liability at the date of acquisition.

The initial provision for loss on unused office space recorded in 2002 was determined based upon management's analysis, review and assessment as of December 31, 2002, of the expected realization of projected sublease income associated with the expected excess facility capacity, compared to the aggregate scheduled lease payments through the remainder of the lease terms. Also, the Company consulted a national real estate consulting firm to evaluate the current market conditions regarding

sublease rates, available commercial real estate capacity in the relevant market and other factors that would be necessary to assess the loss. These factors were used as the basis in estimating the sublease income in order to determine the net loss from unused office space.

During the second quarter, the estimated timeframe for when the Company would be able to exit the lease was changed. The Company again consulted a national real estate consulting firm to assess the expected range of probable sublease rates giving consideration to the current market for commercial real estate, remaining lease term, property location, and other relevant factors. Based on the expected sublease rates, remaining lease term and the estimated "sublease period", management concluded an additional provision of $361,000 was required in the second quarter of 2003. This additional provision was recorded as an increase to goodwill.

The Company periodically evaluates the adequacy of this accrual and the related variables and assumptions used to calculate the estimated loss on unused office space. The accrual for loss on unused office space as of June 30, 2003 was $485,000, net of cumulative lease payments totaling approximately $86,000 which have been charged to the accrual.

10. Stockholders' Rights Plan

On May 28, 2003, the Board declared a dividend distribution of one preferred share purchase right (a "Right") for each outstanding share of Common Stock, par value $0.001 per share (the "Common Stock"), of the Corporation. The dividend is payable to the stockholders of record on June 10, 2003 (the "Record Date") with respect to shares of Common Stock issued thereafter until the Distribution Date (as defined below) and, in certain circumstances, with respect to shares of Common Stock issued after the Distribution Date. Except as set forth below, each Right, when it becomes exercisable, entitles the registered holder to purchase from the Company one one-thousandth (1/1000th) of a share of Series RP Preferred Stock of the Company, $0.001 par value per share (the "Preferred Stock"), at a price of $25.00 per one one-thousandth (1/1000th) of a share of Preferred Stock (the "Purchase Price"), subject to adjustment. The description and terms of the Rights are set forth in a Rights Agreement (the "Rights Agreement") between the Company and Computershare Trust Company, Inc., as Rights Agent (the "Rights Agent"), dated as of May 29, 2003.

Initially, the Rights will be attached to certificates representing shares of Common Stock then outstanding, and no separate certificates representing the Rights ("Right Certificates") will be distributed. The Rights will separate from the Common Stock upon the earlier to occur of (i) a person or group of affiliated or associated persons having acquired, without the prior approval of the Board, beneficial ownership of 15% or more of the outstanding shares of Common Stock or (ii) 10 days, or such later date as the Board may determine, following the commencement of or announcement of an intention to make, a tender offer or exchange offer the consummation of which would result in a person or group of affiliated or associated persons becoming an Acquiring Person (as hereinafter defined) except pursuant to a Permitted Offer (as hereinafter defined) (the "Distribution Date"). A person or group whose acquisitions of shares of Common Stock cause a Distribution Date pursuant to clause (i) above is an "Acquiring Person," with certain exceptions as set forth in the Rights Agreement. The date that a person or group is first publicly announced to have become such by the Company or such Acquiring Person is the "Shares Acquisition Date."

The Rights Agreement provides that, until the Distribution Date, the Rights will be transferred with and only with the associated shares of Common Stock. Until the Distribution Date (or earlier redemption or expiration of the Rights), new Common Stock certificates issued after the Record Date upon transfer or new issuance of shares of Common Stock will contain a notation incorporating the Rights Agreement by reference. Until the Distribution Date (or earlier redemption or expiration of the Rights), the surrender for transfer of any certificates for shares of Common Stock outstanding as

of the Record Date, will also constitute the transfer of the Rights associated with the shares of Common Stock represented by such certificate. As soon as practicable following the Distribution Date, Right Certificates will be mailed to the holders of record of shares of the Common Stock as of the close of business on the Distribution Date (and to each initial record holder of certain shares of Common Stock issued after the Distribution Date), and such separate Right Certificates alone will evidence the Rights.

The Rights are not exercisable until the Distribution Date and will expire at the close of business on May 29, 2013, unless earlier redeemed by the Company as described below.

In the event that any person becomes an Acquiring Person (except pursuant to a tender or exchange offer which is for all outstanding shares of Common Stock at a price and on terms which a majority of certain members of the Board determines to be adequate and in the best interests of the Company, its stockholders and other relevant constituencies, other than such Acquiring Person, its affiliates and associates (a "Permitted Offer")), each holder of a Right will thereafter have the right (the "Flip-In Right") to receive upon exercise the number of shares of Common Stock (or, in certain circumstances, of one one-thousandths (1/1000ths) of a share of Preferred Stock or other securities of the Company) having a value (immediately prior to such triggering event) equal to two times the then-applicable Purchase Price of the Right. Notwithstanding the foregoing, following the occurrence of the event described above, all Rights that are, or (under certain circumstances specified in the Rights Agreement) were, beneficially owned by any Acquiring Person or any affiliate or associate thereof will be null and void. The Board has the option, at any time after any person becomes an Acquiring Person, to exchange all or part of the then-exercisable Rights (excluding those that have become void, as described in the immediately preceding sentence) for shares of Common Stock, at an exchange ratio determined by dividing the then-applicable Purchase Price by the then-current market price per share of Common Stock as determined in accordance with the Rights Agreement. However, this option generally terminates if any person becomes the beneficial owner of 50% or more of the Common Stock.

In the event that, at any time following the Shares Acquisition Date, (i) the Company is acquired in a merger or other business combination transaction in which the holders of all of the outstanding shares of Common Stock immediately before the consummation of the transaction are not the holders of all of the surviving corporation's voting power, or (ii) more than 50% of the Company assets or earning power is sold or transferred, in either case with or to (x) an Acquiring Person or any affiliate or associate thereof or (y) any other person in which such Acquiring Person, affiliate or associate has an interest or any person acting on behalf of or in concert with such Acquiring Person, affiliate or associate, or (z) if, in such transaction, all holders of shares of Common Stock are not treated alike, any other person, then each holder of a Right (except Rights which previously have been voided as set forth above) shall thereafter have the right (the "Flip-Over Right") to receive, upon exercise, common shares of the acquiring company (or, in certain circumstances, its parent) having a value equal to two times the exercise price of the Right. The holder of a Right will continue to have the Flip-Over Right whether or not such holder exercises or surrenders the Flip-In Right.

The Purchase Price payable, and the number of shares of Preferred Stock, shares of Common Stock or other securities issuable, upon exercise of the Rights are subject to adjustment from time to time to prevent dilution (i) in the event of a stock dividend on, or a subdivision, combination or reclassification of, the Preferred Stock, (ii) upon the grant to holders of shares of the Preferred Stock of certain rights or warrants to subscribe for or purchase shares of Preferred Stock at a price, or securities convertible into Preferred Stock with a conversion price, less than the then current market price of the Preferred Stock or (iii) upon the distribution to holders of shares of the Preferred Stock of

evidences of indebtedness or assets (excluding regular quarterly cash dividends) or of subscription rights or warrants (other than those referred to above).

The number of outstanding Rights and the number of one one-thousandths (1/1000ths) of a share of Preferred Stock issuable upon exercise of each Right are also subject to adjustment in the event of a stock split of the Common Stock or a stock dividend on the Common Stock payable in Common Stock or subdivisions, consolidations or combinations of the Common Stock occurring, in any such case, prior to the Distribution Date.

With certain exceptions, no adjustment in the Purchase Price will be required until cumulative adjustments require an adjustment of at least 1% in such Purchase Price.

At any time prior to the earlier to occur of (i) a person becoming an Acquiring Person or (ii) the expiration of the Rights, and under certain other circumstances, the Company may redeem the Rights in whole, but not in part, at a price (payable in cash or, at the Company's election, in Common Stock) of $0.001 per Right (the "Redemption Price"), which redemption shall be effective upon the action of the Board. Additionally, following the Shares Acquisition Date, the Corporation may redeem the then outstanding Rights in whole, but not in part, at the Redemption Price, provided that such redemption is in connection with a merger or other business combination transaction or series of transactions involving the Company in which all holders of shares of Common Stock are treated alike but not involving an Acquiring Person or its affiliates or associates.

Other than those provisions relating to the rights, duties and obligations of the Rights Agent and certain principal economic terms of the Rights, all of the provisions of the Rights Agreement may be amended by the Board before the Distribution Date. After the Distribution Date, the provisions of the Rights Agreement may be amended by the Board in order to cure any ambiguity, defect or inconsistency, to make changes that do not adversely affect the interests of holders of Rights (excluding the interests of any Acquiring Person), or, subject to certain limitations, to shorten or lengthen any time period under the Rights Agreement.

Until a Right is exercised, the holder thereof, as such, will have no rights as a stockholder of the Company, including, without limitation, the right to vote or to receive dividends. While the distribution of the Rights will not be taxable to stockholders of the Company, stockholders may, depending upon the circumstances, recognize taxable income should the Rights become exercisable or upon the occurrence of certain events thereafter.

This summary description of the Rights does not purport to be complete and is qualified in its entirety by reference to the Rights Agreement, which was filed under Form 8-K on May 29, 2003.

Each share of Common Stock outstanding on May 28, 2003 received one Right. As long as the Rights are attached to the shares of Common Stock, the Company will issue one Right with each new share of Common Stock so that all such shares will have attached rights.

The Rights have certain anti-takeover effects. The Rights will cause substantial dilution to a person or group that attempts to acquire the Company without conditioning the offer on the Rights being redeemed or a substantial number of Rights being acquired. However, the Rights should not interfere

with any tender offer or merger approved by the Company (other than with an Acquiring Person) because the Rights do not become exercisable in the event of a Permitted Offer or other acquisition exempted by the Board.

11. Composition of Certain Financial Statement Captions

Inventories

	June 30, 2003 (Unaudited)	December 31. 2002
Raw materials	$ 352,000	$ 602,000
Finished goods	702,000	548,000
	$ 1,054,000	$ 1,150,000

Property and Equipment, net

	June 30, 2003 (Unaudited)	December 31. 2002
Office and computer equipment	$ 2,008,000	$ 1,874,000
Manufacturing and development equipment	2,982,000	2,721,000
Leasehold improvements	1,688,000	1,551,000
	6,678,000	6,146,000
Less accumulated depreciation and amortization	(3,207,000)	(2,520,000)
	$ 3,471,000	$ 3,626,000

Other Assets

	June 30, 2003 (Unaudited)	December 31. 2002
Deposits	$ 327,000	$ 400,000
Assets held for sale	116,000	162,000
	$ 443,000	$ 562,000

Goodwill and Intangibles, net

	June 30, 2003 (Unaudited)	December 31. 2002
Intangibles (net of accumulated amortization of $169,000 and $34,000 in 2003 and 2002, respectively)	$ 2,526,000	$ 2,661,000
Goodwill	4,669,000	4,256,000
	$ 7,195,000	$ 6,917,000

Accounts Payable and Accrued Expenses

	June 30, 2003 (Unaudited)	December 31. 2002
Accounts payable	$ 433,000	$ 599,000
Accrued bonus	—	397,000
Accrued vacation	427,000	325,000
Accrued expenses	1,134,000	1,181,000
	$ 1,994,000	$ 2,502,000

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

This report contains certain statements that may be deemed "forward-looking statements" within the meaning of United States securities laws. All statements, other than statements of historical fact, that address activities, events or developments that we intend, expect, project, believe or anticipate will or may occur in the future are forward-looking statements. Such statements are based upon certain assumptions and assessments made by our management in light of their experience and their perception of historical trends, current conditions, expected future developments and other factors they believe to be appropriate. The forward-looking statements included in this report are also subject to a number of material risks and uncertainties, including but not limited to the risks described in "Risk Factors" described in Item 3 of this Form 10-Q under the heading "Quantitative and Qualitative Disclosures About Market Risk." We encourage you to read those descriptions carefully. We caution investors not to place undue reliance on the forward-looking statements contained in this report. These statements, like all statements in this report, speak only as of the date of this report (unless another date is indicated) and we undertake no obligation to update or revise the statements except as required by law. Such forward-looking statements are not guarantees of future performance and actual results will likely differ, perhaps materially, from those suggested by such forward-looking statements.

Overview

We were initially formed as a California general partnership in July 1996, and incorporated in the State of Delaware in May 1997. Our two platform technologies include biomaterials (bioresorbable implants) and biologics (regenerative medicine). Within our biomaterials platform we design, develop, manufacture and market bioresorbable polymer implants for use in the reconstruction, repair and regeneration of hard tissue (bone) and soft tissue throughout the body. Additionally, we design, develop, and manufacture related instruments and accessories used in connection with our implants. Our bioresorbable implants are used in spine, orthopedic, neurosurgical, and other musculoskeletal reconstructive surgical applications, while our bioresorbable thin films are used for soft tissue applications.

In September 2002 we sold our craniomaxillofacial "CMF" (skull and face) bone fixation implant and accessory product line to a subsidiary of Medtronic, Inc. ("Medtronic"). We will continue to be a backup supplier for the acquired products during a transition period, which we expect to be completed in 2003.

In November 2002, we acquired StemSource, Inc. ("StemSource"), a California company specializing in stem cell bioengineering, research and technology. This has allowed us to begin developing our biologics platform technology of regenerative (stem cell) therapies using adult stem cells derived from a patient's own adipose (fat) tissue. In addition, this acquisition provides us technology in the field of stem cell preservation and banking, offering the opportunity for people worldwide to bank their stem cells for later personal use.

Our bioresorbable implants are made from a polylactide copolymer composed of lactic acid similar to that which occurs naturally in the human body. The polymer implant maintains its strength during the healing process, while slowly breaking down in the body through hydrolysis. The polymer fragments into single lactic acid molecules, and the lactic acid molecules are then metabolized by the liver into carbon dioxide and water, and released from the body through the lungs.

We have received regulatory clearance or approval to market and sell some of our bioresorbable implant products in the United States, Canada, Europe and other countries.

In January 2000, we entered into an exclusive worldwide Distribution Agreement with Medtronic for the global marketing and distribution of some of our products for use in CMF applications. We also entered into a Development and Supply Agreement with Medtronic, in January 2000, to co-develop bioresorbable implants for use in spinal fixation, stabilization and fusion applications and supply any such new implants to Medtronic as the distributor. As mentioned above, in September 2002, we entered into an agreement to sell substantially all of the assets related to the CMF product line to a subsidiary of Medtronic. The sale included a perpetual exclusive license to certain intangible assets to be used in the CMF surgical field, along with use of our bioresorbable implants for repair of the bone harvest site in the iliac crest. We retained all other rights to use the intangible assets in other parts of the body. In another agreement with Medtronic on the same day, we extended the term of our existing co-development and supply agreement for spinal implants to 2012, and obtained a waiver of the right of first offer to market our bioresorbable films in certain fields.

We are continuing development of new products and materials useful for the repair and regeneration of bone. We are currently engaged in a clinical marketing study related to our FDA approved faster-resorbing polymer (FRP) which may be particularly useful in treating pediatric patients due to their rapid rate of bone growth, and we are developing additional products for use in spinal fusion procedures, long-bone repair, healing of nonunion fractures and cyst or tumor removal site repair, among other things. These future products may require further development and regulatory clearance or approval, potentially including clinical trials, prior to marketing and commercial use.

Building on our initial biomaterials platform technology, we have developed the SurgiWrap™ and CardioWrap™ families of bioresorbable surgical thin film. These products are constructed from the same polylactide copolymer as our other implants. Our bioresorbable thin films have present and potential clinical applications across multiple surgical specialties in which the primary intended market includes the control of postsurgical adhesions in cardiothoracic, general, spinal and obstetric surgeries. We have not yet obtained clearance to market in the United States ("U.S.") for postsurgical adhesion indications, although we have received clearance for postsurgical adhesion indications in Europe and in other countries. In addition to its soft tissue reinforcement properties, extensive preclinical research has demonstrated that our bioresorbable film also acts as a barrier, controlling the formation of fibrous bands which cause adhesions.

In 2001 we received our first regulatory clearances from the FDA to market our SurgiWrap™ bioresorbable film for reinforcement of soft tissues throughout the body and as a bridging material where indicated. Some of the uses include, but are not limited to, repair of fascial defects including vaginal prolapse repair, colon and rectal prolapse repair, and reconstruction of the pelvic floor. Additional U.S. clearance includes the prevention of postsurgical adhesions in specific ear, nose and throat ("ENT") procedures. In June 2002, we hired a direct sales force in the U.S. to sell SurgiWrap™ film as an adhesion control product for specified ENT procedures and for soft tissue support. The sales team covered some of the major metropolitan areas in the U.S. market.

In 2002 we received the CE Mark (marketing clearance in Europe) to market our bioresorbable film (SurgiWrap™) for the prevention of postsurgical adhesions in cardiothoracic, general, spinal and gynecological & obstetric ("OB/GYN") surgeries. In Canada, Thailand, Korea, Mexico, Peru, Singapore, Malaysia and Australia we have received clearance to market our surgical film for the prevention of adhesions in the heart, spine, peritoneal cavity (including

bowels and organs) and OB/GYN surgeries. To date we have established distribution agreements with a network of 29 independent international distributors to sell our bioresorbable surgical film throughout Europe, South America, the Middle East and the Far East.

Through the acquisition of StemSource in November 2002, we are moving to advance stem cell

therapies that promote the healing or regeneration of the patient's own tissues with the patient's own stem cells. We believe adult stem cells, harvested from the patient's fat tissue through a liposuction procedure, have the ability to offer replacement cells to treat life-altering or life-threatening disorders. StemSource's approach has significant advantages over many other stem cell technologies. StemSource developed devices and techniques to harvest adult stem cells from fat, and demonstrated the ability of adipose (fat)-derived stem cells to differentiate into a variety of tissues *in vitro*.

A stem cell is an unspecialized cell that can become many of the two-hundred-plus tissues that make up the body. Of the two types of stem cells, adult (found in various tissues after birth), and embryonic (fetal tissue), our efforts are exclusively directed toward adult stem cell autologous transplantation (separation of the stem cells from a person's fat and delivering them back to the same person where needed).

The acquisition of StemSource has also provided us a California state-licensed tissue bank facility for the preservation of extracted stem cells. Typically arranged through a patient's physician, stem cell banking is the process by which adult stem cells, taken from a liposuction or other procedure, are stored (cryopreserved) in a liquid nitrogen freezer at -320°F (-196°C) exclusively for the particular patient who banked them. The banked stem cells, frozen in suspended animation, can be preserved for the life of the individual.

We are required to obtain from the Food and Drug Administration regulatory clearance of our medical device products that we market in the United States. In addition, we must obtain marketing authorization for our products that we market in Europe, Canada, Mexico and certain other non-U.S. jurisdictions. During 2002 and 2003, we received additional regulatory clearance or marketing authorization for our products from various jurisdictions, for the following indications:

- the use of our SurgiWrap™ surgical barrier film to cover orbital implants used in enucleation (eye removal) surgery and to protect the surrounding orbital tissue from the surface of the implant (U.S.)

- the use of our HYDROSORB™ TELAMON™ device to maintain the relative position of bone graft material and to promote fusion in the lumbar spine (in Europe – HYDROSORB™ is a trademark of Medtronic, Inc.)

- the use of our bioresorbable adhesion barrier film to prevent the formation or reformation of adhesions and promote the formation of a surgical dissection plane to include the following anatomical regions: pericardium, epicardium, and retrosternal (Canada, Thailand, Korea, Australia)

- the use of our bioresorbable adhesion barrier film (in Europe) as a temporary physical barrier to separate opposing tissues and prevent the in growth of scar tissues and the formation or reformation of adhesions immediately adjacent to the barrier film; aid in reoperation procedures by promoting the formation of a surgical dissection plane immediately adjacent to the barrier film; prevent the formation or reformation of adhesions and promote the formation of a surgical dissection plane to include the following anatomical regions:

    a) Pericardium, epicardium, and retrosternal

    b) Peritoneum, peritoneal cavity, bowels, cecum, organs

    c) Dura, spinal dura, peridural, epidural

    d) OB/GYN (e.g. female pelvic, reproductive organs, ovaries, uterus, uterine tubes, etc.)

- the use of our orthopedic graft containment products (OS Trauma) to support weak bony tissue in orthopedic reconstruction procedures including iliac crest and rib reconstructions

We are also developing additional products for use in spinal fusion procedures, soft tissue repair, adhesion control products and long-bone repair, among other things. These future products may require further development and regulatory clearance or approval, potentially including clinical trials, prior to marketing and commercial use.

We continue to seek patent protection for our new products as evidenced by our recent receipt of a U.S. patent (No. 6,531,146) for our family of bioresorbable thin films (SurgiWrap™/CardioWrap™) for the control of postsurgical adhesions, as well as a new patent in Australia (No. 752357) for our macro-porous mesh.

For the six months ended June 30, 2003 and 2002, revenues related to the craniomaxillofacial product line sold to Medtronic in September 2002 were $1,226,000 and $1,296,000, respectively. Included in revenue for the six months ended June 30, 2003 was $788,000 related to the amortization of the deferred gain on sale of assets, related party. For the three months ended June 30, 2003 and 2002, revenues related to the craniomaxillofacial product line were $613,000 and $627,000, respectively. Included in revenue for the three months ended June 30, 2003 was $407,000 related to the amortization of the deferred gain on sale of assets, related party. We continue to be a backup supplier to Medtronic for the acquired products during a transition period, which we expect to be completed in the fourth quarter of 2003 or the first quarter of 2004. The amortization of deferred gain on the sale of assets, related party, relates to the sale of the CMF product line to Medtronic in September 2002. A portion of the deferred gain is recognized as revenue under the backup supplier agreement with Medtronic which provides for sales of CMF products at cost. Discounts from the previously agreed price have been recorded as a reduction to the deferred gain on sale of assets, related party.

Medtronic continues to be a significant stockholder of MacroPore and our largest customer, as the primary distributor of our bioresorbable implant products for use in musculoskeletal applications. Under the Amended Development Agreement, we sell these products to Medtronic at fixed selling prices which are subject to adjustment upon biannual reviews. Therefore, our revenues, operating results and cash flow will be affected by fluctuations in the cost of sales, sales volumes and operating expenses. Although the Amended Development Agreement provides that direct selling costs are borne by the distributor, our cash flow may be adversely affected if our fixed costs increase and we are unable to negotiate or otherwise obtain an increase in product pricing with Medtronic.

We incurred net losses of $5,339,000 for the six months ended June 30, 2003, $13,003,000 and $11,207,000 for the years ended December 31, 2002 and 2001, respectively. As of June 30, 2003, we had an accumulated deficit of $45,441,000. These net losses resulted to a large extent from expenses associated with developing bioresorbable implant designs, performing preclinical studies, preparing submissions to the FDA and foreign regulatory agencies, expanding marketing and distribution channels, further developing our manufacturing capabilities, securing intellectual property rights and trademarks and supporting our status as a public company. We expect to expend substantial financial resources to expand marketing, training and customer support needed to generate and support higher sales, obtain additional regulatory clearances and to develop new products. This investment is likely to result in continued operating losses for the foreseeable future until operational efficiencies are reached.

For the six months ended June 30, 2003, our $4,832,000 in revenue was composed of $4,671,000 or 96.7% from sales of our bioresorbable implant products for use in musculoskeletal, soft tissue

applications, and craniomaxillofacial. Craniomaxillofacial products were included in the September 2002 product line sale to Medtronic. The $4,671,000 in revenue from bioresorbable implant products was comprised of $2,958,000 or 63.3% of musculoskeletal sales, $637,000 or 13.6% of thin film products for soft tissue applications and $1,076,000 or 23.1% of craniomaxillofacial revenue. The $161,000 in revenue not related to bioresorbable implants was composed of $156,000 from sales of instruments and accessories used by surgeons to form, mold and manipulate our bioresorbable products during surgical procedures and $5,000 from our stem cell storage services. Included in revenue for the three and six months ended June 30, 2003 was $407,000 and $787,000, respectively, related to the amortization of gain on sale of assets, related party.

Results of Operations

Three months ended June 30, 2003 compared to three months ended June 30, 2002

Revenues. For the three months ended June 30, 2003, revenues were $2,903,000 compared to $2,707,000 for the three months ended June 30, 2002, an increase of $196,000, or 7.2%. The revenue for the three months ended June 30, 2003 was comprised of $1,972,000 in musculoskeletal applications, $317,000 in thin film products, $613,000 in craniomaxillofacial products of which $408,000 related to the amortization of gain on sale of assets, related party and $1,000 in stem cell storage services. The revenue for the three months ended June 30, 2002 was composed of $2,001,000 in musculoskeletal applications of which $150,000 related to an engineering project that involved musculoskeletal products, $4,000 in thin film products, $627,000 in craniomaxillofacial products and $75,000 that related to craniomaxillofacial product license fees. Excluding the musculoskeletal engineering project of $150,000 in 2002, the $121,000 increase in musculoskeletal products revenue in the three months ended June 30, 2003 related to replenishment orders exceeding an initial stocking order in the three months ended June 30, 2002. The $313,000 increase in bioresorbable thin film product revenue in the three months ended June 30, 2003 was attributable to increased market acceptance. The $14,000 decrease in craniomaxillofacial products and the $75,000 decrease in license fee revenue in the three months ended June 30, 2003 related to Medtronic continuing to transition the manufacturing of craniomaxillofacial production to their own facilities. We expect craniomaxillofacial product sales to continue to decrease throughout 2003 and cease shortly thereafter. Revenues attributable to Medtronic, which owns approximately 6.9% of our outstanding common stock, represented 89.0% of our revenues for the three months ended June 30, 2003, compared to 99.7% for the three months ended June 30, 2002. The decrease in the revenue percentage attributable to Medtronic relates to the distribution of our bioresorbable thin film products by our own direct sales force and other third party distributors in the three months ended June 30, 2003 and the sale of craniomaxillofacial product line to Medtronic in September 2002.

Cost of revenues. For the three months ended June 30, 2003, cost of revenues was $787,000 or 27.1% compared to $981,000 or 36.2% of revenues for the three months ended June 30, 2002. Cost of revenues includes material, manufacturing labor and overhead costs. Included in the cost of revenue in the three months ended June 30, 2002 was $188,000 of costs associated with an engineering project that involved musculoskeletal products. Excluding the costs associated with the engineering project and $150,000 of related revenue, the cost of revenue percentage would be 31.0% for the three months ending June 30, 2002. Excluding the engineering project, the decrease of 3.9% in cost as a percentage of revenues in the three months ended June 30, 2003 was primarily attributable to increased sales revenue that allowed us to absorb more of our fixed manufacturing labor and overhead costs. The continued reduction of revenues as a result of the sale of the craniomaxillofacial product line in September 2002 could negatively impact our margins until our other products' sales grow enough to replace the lost revenue.

Gross profit. For the three months ended June 30, 2003, gross profit was $2,116,000 or 72.9% of

revenues, compared to $1,726,000 or 63.8% of revenues for the three months ended June 30, 2002. The increase in gross profit as a percentage of revenues was primarily attributable to increased revenue and the ability to absorb more of our fixed manufacturing labor and overhead costs, as discussed above.

Research and development expenses. For the three months ended June 30, 2003, research and development expenses excluding related stock based compensation expenses were $2,107,000, compared to $1,388,000 for the three months ended June 30, 2002, an increase of $719,000 or 51.8%. Research and development expenses include costs associated with the design, development, testing and enhancement of our products, regulatory fees, the purchase of laboratory supplies and preclinical studies. The $719,000 increase in research and development expenses in the three months ended June 30, 2003 as compared to the three months ended June 30, 2002 was primarily attributable to our expenditures in the biologic (stem cell) platform technology. We expended $1,066,000 in the development of our biologic platform technology in the three months ended June 30, 2003 by employing 12 researchers, engineers and support staff, in addition to incurring other significant expenses related to regulatory, consulting, and facilities to develop this technology. There were no comparable expenses in the three months ended June 30, 2002. We spent $1,041,000 in our biomaterial platform technology relating to the development of musculoskeletal products and faster-resorbing polymer products in the three months ended June 30, 2003 as compared to $1,388,000 in the

three months ended June 30, 2002. The $347,000 decrease in spending during the three months ended June 30, 2003 as compared to the three months ended June 30, 2002, was attributable to the successful development of our thin film product line and the discontinuance of development of the craniomaxillofacial product line which was sold to Medtronic. In addition, stock based compensation related to research and development was $20,000 for the three months ended June 30, 2003 and $25,000 for the three months ended June 30, 2002. For further information regarding stock based compensation, you should read the discussion under the section entitled "Stock based compensation expenses." We expect research and development spending for the year ended December 31, 2003 to increase by approximately $3,000,000 as compared to the year ended December 31, 2002 as we continue to support the research and development of therapies based on adult stem cells which we acquired with the purchase of StemSource. We also plan to continue to fund the product development efforts and seek further regulatory approvals for our current bioresorbable product lines related to musculoskeletal and thin film.

Sales and marketing expenses. For the three months ended June 30, 2003, sales and marketing expenses excluding related stock based compensation expenses were $1,004,000, compared to $1,026,000 for the three months ended June 30, 2002, a decrease of $22,000 or 2.1%. Sales and marketing expenses include costs for marketing personnel, tradeshow expenses, and promotional activities and materials. We use Medtronic for the distribution of our musculoskeletal product lines; therefore, we are focusing our sales and marketing efforts on our thin film product line domestically through a dedicated sales force and internationally through independent distributors. The $22,000 decrease in sales and marketing expenses in the three months ended June 30, 2003 as compared to the three months ended June 30, 2002 was primarily attributable to the expense of a sales and marketing team dedicated to selling our thin film product line which was offset by the decision not to supplement Medtronic's marketing of our products. We spent $728,000 for sales and marketing to directly sell our thin film product line domestically in the three months ended June 30, 2003, as compared to $376,000 in expense in the three months ended June 30, 2002. The $352,000 increase in such spending in the three months ended June 30, 2003 primarily related to the labor costs of our sales and marketing team being employed for the full three months as compared to the three months ended June 30, 2002 where they were hired in the last month of the period. We spent $180,000 in international sales and marketing of thin film during the three months ended June 30, 2003 as compared to $128,000 in for the three months ended June 30, 2002. The $52,000 increase in such spending during the three months ended June 30, 2003 as compared to the three months ended June 30, 2002, was attributable to the labor and travel expenses relating to developing international distributors and a sales office in Japan for the thin product line. We spent $96,000 in general product and corporate

marketing expenditures in the three months ended June 30, 2003, or $427,000 less than in the three months ended June 30, 2002 which was a result of our decision not to continue to supplement Medtronic's marketing of our musculoskeletal and craniomaxillofacial product lines. In addition, stock based compensation related to sales and marketing was $18,000 for the three months ended June 30, 2003 and $34,000 for the three months ended June 30, 2002. For further information regarding fluctuations in sales and marketing inclusive of stock based compensation, you should read the discussion under the section entitled "Stock based compensation expenses". We do not expect to make significant marketing expenditures related to our biologic platform technology until our research and development efforts result in commercially viable products. We expect sales and marketing expenses to increase approximately $1,000,000 in 2003 as compared to 2002 as we continue our promotional efforts related to the thin film product line with a dedicated sales force.

General and administrative expenses. For the three months ended June 30, 2003, general and administrative expenses excluding related stock based compensation expenses were $951,000, compared to $855,000 for the three months ended June 30, 2002, an increase of $96,000 or 11.2%. General and administrative expenses include costs for administrative personnel, legal and other professional expenses and general corporate expenses. The $96,000 increase in general and administrative expenses for the three months ended June 30, 2003 was primarily attributable to a $183,000 increase that related to domestic salaries, legal, amortization of intangibles and other general corporate expenditures that were offset by a $87,000 decrease in international salaries, meeting and conferences and other general expenditures. In addition, stock based compensation related to general and administrative expenses was $174,000 for the three months ended June 30, 2003, compared to $216,000 for the three months ended June 30, 2002. For further information regarding fluctuations in general and administrative expenses inclusive of stock based compensation, you should read the discussion under the section entitled "Stock based compensation expenses." We expect general and administrative expenses in absolute dollars to remain at current levels for the remainder of the year ending December 31, 2003.

Stock based compensation expenses. For the three months ended June 30, 2003, total non-cash stock based compensation expenses classified in operating expenses were $212,000, compared to $275,000 for the three months ended June 30, 2002, a decrease of $63,000, or 22.9%. Stock based compensation results from options issued to employees, directors and non-employees. The stock based compensation relating to employees and directors represents the difference between the exercise price of the stock based awards and the deemed market value of the underlying common stock on the date of the grant. The stock based compensation relating to non-employees represents the fair value of the underlying common stock on the initial date of grant, then marked to market over the vesting period until meeting the performance commitment. Unearned stock based compensation is amortized over the remaining vesting periods of the options, which generally vest over a four year period from the date of grant. The overall decrease in stock based compensation expense was related to the normal amortization of the stock based compensation expense over the remaining vesting periods. There was no stock based compensation expense relating to non-employees for the three months ended June 30, 2003.

Interest income. For the three months ended June 30, 2003, interest income was $105,000, compared to $263,000 for the three months ended June 30, 2002, a decrease of $158,000, or 60.1%. The decrease in interest income resulted from lower interest rates and a decrease in funds we had available for investments.

Interest and other expenses. For the three months ended June 30, 2003, interest and other expenses were $6,000 in expense compared to $9,000 in income for the three months ended June 30, 2002, an increase of $15,000 or 166.7% in expense. The increase in interest and other expense related to the interest expense on our long-term debt obligations not continuing to be offset by foreign currency gains.

Equity loss in investment. For the three months ended June 30, 2002, our equity loss in investment was $57,000, with no comparable loss in the three months ended June 30, 2003. The loss related entirely to our former 13.5% equity interest in StemSource, which we accounted for using the equity method. Under the equity method of accounting, we recognized a pro rata share of StemSource's operating losses. In November 2002 we acquired 100% of the outstanding stock of StemSource and now include 100% of StemSource in the results of operations.

Six months ended June 30, 2003 compared to six months ended June 30, 2002

Revenues. For the six months ended June 30, 2003, revenues were $4,832,000 compared to $3,817,000 for the six months ended June 30, 2002, an increase of $1,015,000, or 26.6%. The revenue for the six months ended June 30, 2003 was comprised of $2,964,000 in musculoskeletal applications, $637,000 in thin film products, $1,226,000 in craniomaxillofacial products of which $788,000 relates to the amortization of gain on sale of assets, related party and $5,000 in stem cell storage services. The revenue for the six months ended June 30, 2002 was composed of $2,367,000 in musculoskeletal applications of which $150,000 related to an engineering project that involved musculoskeletal products, $4,000 in thin film products, $1,296,000 in craniomaxillofacial products and $150,000 that related to craniomaxillofacial product license fees. Excluding the musculoskeletal engineering project of $150,000 in 2002, the $747,000 increase in musculoskeletal products revenue in the six months ended June 30, 2003 related to the increase in availability of the product from limited clinical evaluations to a full product release. The $633,000 increase in bioresorbable thin film revenue in the six months ended June 30, 2003 was attributable to increased market acceptance. The $70,000 decrease in craniomaxillofacial products and the $150,000 decrease in license fee revenue in the six months ended June 30, 2003 relates to Medtronic continuing to transition the manufacturing of craniomaxillofacial production to their own facilities. We expect craniomaxillofacial product sales to continue to decrease throughout 2003 and cease shortly thereafter. Revenues attributable to Medtronic represented 86.7% of our revenues for the six months ended June 30, 2003, compared to 99.5% for the six months ended June 30, 2002. The decrease in the revenue percentage attributable to Medtronic relates to the distribution of our bioresorbable thin film products by our own direct sales force and other third party distributors in the six months ended June 30, 2003 and the sale of the craniomaxillofacial product line to Medtronic in September 2002.

Cost of revenues. For the six months ended June 30, 2003, cost of revenues was $1,426,000 or 29.5% of revenues, compared to $1,531,000 or 40.1% of revenues for the six months ended June 30, 2002. Cost of revenues includes material, manufacturing labor and overhead costs. Included in the cost of revenue in the six months ended June 30, 2002 was $188,000 of costs associated with an engineering project that involved musculoskeletal products. Excluding the costs associated with the engineering project and $150,000 of related revenue, the cost of revenue percentage would have been 36.6% for the six months ending June 30, 2002. Excluding the engineering project, the decrease of 7.4% in cost as a percentage of revenues in the six months ended June 30, 2003 was primarily attributable to increased sales revenue that allowed us to absorb more of our fixed manufacturing labor and overhead costs. The continued reduction of revenues as a result of the sale of the craniomaxillofacial product line in September 2002 could negatively impact our margins until our other products' sales grow large enough to replace the lost revenue.

Gross profit. For the six months ended June 30, 2003, gross profit was $3,406,000 or 70.5% of revenues, compared to $2,286,000 or 59.9% of revenues for the six months ended June 30, 2002. The increase in gross profit as a percentage of revenues was primarily attributable to increased revenue and the ability to absorb more of our fixed manufacturing labor and overhead costs, as discussed above.

Research and development expenses. For the six months ended June 30, 2003, research and development expenses excluding related stock based compensation expenses were $4,258,000, compared

to $2,873,000 for the six months ended June 30, 2002, an increase of $1,385,000 or 48.2%. Research and development expenses include costs associated with the design, development, testing and enhancement of our products, regulatory fees, the purchase of laboratory supplies and preclinical studies. The $1,385,000 increase in research and development expenses in the six months ended June 30, 2003 as compared to the six months ended June 30, 2002 was primarily attributable to our expenditures in the biologic (stem cell) platform technology. We expended $1,902,000 in the development of our biologic platform technology in the six months ended June 30, 2003 by employing 12 researchers, engineers and support staff, in addition to, incurring other significant expenses related to regulatory, consulting, and facilities to develop this technology. There were no comparable expenses in the six months ended June 30, 2002. We spent $2,356,000 in our biomaterial platform technology development of musculoskeletal products and faster-resorbing polymer products in the six months ended June 30, 2003 as compared to $2,873,000 in the six months ended June 30, 2002. The $517,000 decrease in spending during the six months ended June 30, 2003 as compared to the six months ended June 30, 2002, was attributable to the successful development of our thin film product line and the discontinuance of development of the craniomaxillofacial product line which was sold to Medtronic. In addition, stock based compensation related to research and development was $39,000 for the six months ended June 30, 2003 and $160,000 for the six months ended June 30, 2002. For further information regarding stock based compensation, you should read the discussion under the section entitled "Stock based compensation expenses."

Sales and marketing expenses. For the six months ended June 30, 2003, sales and marketing expenses excluding related stock based compensation expenses were $2,299,000, compared to $1,697,000 for the six months ended June 30, 2002, an increase of $602,000 or 35.5%. Sales and marketing expenses include costs for marketing personnel, tradeshow expenses, and promotional activities and materials. We use Medtronic for the distribution of our musculoskeletal product lines; therefore, we are focusing our sales and marketing efforts on our thin film product line domestically through a dedicated sales force and internationally through independent distributors. The $602,000 increase in sales and marketing expenses in the six months ended June 30, 2003 as compared to the six months ended June 30, 2002 was primarily attributable to the expense of a sales and marketing team dedicated to selling our thin film product line which was offset by the decision not to supplement Medtronic's marketing of our products. We spent $1,630,000 for sales and marketing to sell directly our thin film product line domestically in the six months ended June 30, 2003, as compared to $376,000 in expense in six months ended June 30, 2002. The $1,254,000 increase spending in the six months ended June 30, 2003 primarily related to the labor costs of our sales and marketing team being employed for the full six months as compared to the six months ended June 30, 2002 where they were hired in the last month of the period. We spent $473,000 in international sales and marketing of thin film during the six months ended June 30, 2003 as compared to $213,000 in the six months ended June 30, 2002. The $260,000 increase in such spending during the six months ended June 30, 2003 as compared to the six months ended June 30, 2002, was attributable to the labor and travel expenses relating to developing international distributors and a sales office in Japan for the thin film product line. We spent $196,000 in general product and corporate marketing expenditures in the six months ended June 30, 2003 or $912,000 less than the six months ended June 30, 2002 which was a result of our decision not to continue to supplement Medtronic's marketing of our musculoskeletal and craniomaxillofacial product lines. In addition, stock based compensation related to sales and marketing was $36,000 for the six months ended June 30, 2003 and $67,000 for the six months ended June 30, 2002. For further information regarding fluctuations in sales and marketing inclusive of stock based compensation, you should read the discussion under the section entitled "Stock based compensation expenses".

General and administrative expenses. For the six months ended June 30, 2003, general and administrative expenses excluding related stock based compensation expenses were $1,999,000, compared to $1,968,000 for the six months ended June 30, 2002, an increase of $31,000 or 1.6%. General and administrative expenses include costs for administrative personnel, legal and other

professional expenses and general corporate expenses. The $31,000 increase in general and administrative expenses for the six months ended June 30, 2003 was primarily attributable to a $71,000 increase that related to the amortization of intangibles which was moderated by lower domestic salaries, legal and other general corporate expenditures and was further offset by a $40,000 decrease in international salaries, legal and other general corporate expenditures. In addition, stock based compensation related to general and administrative expenses was $350,000 for the six months ended June 30, 2003, compared to $517,000 for the six months ended June 30, 2002. For further information regarding fluctuations in general and administrative expenses inclusive of stock based compensation, you should read the discussion under the section entitled "Stock based compensation expenses."

Stock based compensation expenses. For the six months ended June 30, 2003, total non-cash stock based compensation expenses classified in operating expenses were $425,000, compared to $744,000 for the six months ended June 30, 2002, a decrease of $319,000, or 42.9%. Stock based compensation results from options issued to employees, directors and non-employees. The stock based compensation relating to employees and directors represents the difference between the exercise price of the stock based awards and the deemed market value of the underlying common stock on the date of the grant. The stock based compensation relating to non-employees represents the fair value of the underlying common stock on the initial date of grant, then marked to market over the vesting period until meeting the performance commitment. Unearned stock based compensation is amortized over the remaining vesting periods of the options, which generally vest over a four year period from the date of grant. The overall decrease in stock based compensation expense was related to the acceleration of vesting and other modifications to compensatory stock options granted to our former president and stock options granted to consultants for services rendered in the six months ended June 30, 2002. The decrease of $121,000 in research and development stock based compensation expense was primarily due to issuing 50,000 fully vested stock options to non-employees for consulting services rendered in the six months ended June 30, 2002. The decrease of $31,000 in sales and marketing stock based compensation expense was due primarily to less than a full period of cost being expensed in the last year of vesting. The decrease of $167,000 in general and administrative stock based compensation expense was primarily due to additional expenses recorded in the six months ended June 30, 2002 as a result of accelerating vesting and modifying the exercise period of certain stock options held by our former president. There was no stock based compensation expense relating to non-employees for the six months ended June 30, 2003.

Interest income. For the six months ended June 30, 2003, interest income was $247,000, compared to $637,000 for the six months ended June 30, 2002, a decrease of $390,000, or 61.2%. The decrease in interest income resulted from lower interest rates and a decrease in funds we had available for investments.

Interest and other expenses. For the six months ended June 30, 2003, interest and other expenses were $11,000, compared to $65,000 for the six months ended June 30, 2002, a decrease of $54,000 or 83.1%. The decrease in interest and other expense related to a decrease in interest expense on our long-term debt obligations which principal balances have decreased.

Equity loss in investment. For the six months ended June 30, 2002, our equity loss in investment was $113,000, with no comparable loss in the six months ended June 30, 2003. The loss related entirely to our former 13.5% equity interest in StemSource, which we accounted for using the equity method. Under the equity method of accounting, we recognized a pro rata share of StemSource's operating losses. In November 2002 we acquired 100% of the outstanding stock of StemSource and now include 100% of StemSource in the results of operations.

Gain on Asset Sale to Medtronic

We have not yet recognized the full gain on the September 2002 asset sale to Medtronic, and will not do so until we successfully transfer the technology and know how, including training, related to the manufacture of the craniomaxillofacial product line, which we expect to occur in the fourth quarter of 2003 or the first quarter of 2004. However, we have recognized approximately $1,053,000 of the gain as revenue related to the sale of CMF product to Medtronic under our backup supply arrangement, which provides for sales of CMF products to Medtronic at cost. Discounts from the previously agreed price have been recorded as a reduction to the deferred gain. We have recorded $8,798,000 of unamortized "Deferred gain on sale of assets, related party" on our balance sheet at June 30, 2003.

Liquidity and Capital Resources

As of June 30, 2003, we had cash and cash equivalents, and short-term investments, available-for-sale, of $18,696,000 and working capital of $19,091,000. Since inception, we have financed our operations primarily through sales of stock and from the September 2002 product line sale to Medtronic. Our sales of preferred stock in 1999, 1998 and 1997 yielded net proceeds of $14,679,000. On August 8, 2000, we completed our initial public offering in Germany and listed our common stock for trading on the Frankfurt Stock Exchange in Frankfurt, Germany, at which time the outstanding shares of our preferred stock were converted into 6,831,398 shares of common stock. We received net proceeds of $43,244,000 from the sale of 3,500,000 shares of our common stock in our initial public offering. A portion of those net proceeds have been used for research and development, to expand our manufacturing operations, to promote our brand and to pursue regulatory approvals for our products. In addition, some of the proceeds have been used for working capital and general corporate purposes. We have invested some of the proceeds from the offering in short-term investments, pending other uses of the proceeds in our business.

Our capital requirements depend on numerous factors, including market acceptance of our products and regulatory approvals, the resources we devote to developing and supporting our products and other factors. We expect to devote substantial capital resources to continue our research and development efforts, to expand our support and product development activities and for other general corporate activities. We believe that our current cash and cash equivalents, short-term investments, available for sale, and revenue to be derived from the sale of our products will be sufficient to fund our operations at least through June 30, 2004. Due to the acquisition of StemSource, we will also have to commit substantial cash resources to fund StemSource's development activities in 2003, which is estimated at approximately $4,000,000 in 2003. Our strategic concept is to use the cash from the Medtronic asset sale to enable us to undertake the StemSource opportunity without depriving our remaining bioresorbable product lines of capital resources which would otherwise have been available to them. Nonetheless, until we begin to generate sufficient revenues from our bioresorbable products operations to cover our operating costs, we may need to seek additional sources of financing in the future. We cannot give assurance that we will generate sufficient revenues to cover our bioresorbable products operating costs or that we will be able to obtain additional financing on terms satisfactory to us, if at all.

Net cash used in operating activities was $4,959,000 and $4,508,000 for the six months ended June 30, 2003 and 2002, respectively. For each period, net cash used in operating activities resulted primarily from net losses and working capital requirements. Net losses for each period resulted to a large extent from expenses associated with the development of our bioresorbable designs, preclinical studies, preparation of submissions to the FDA and foreign regulatory agencies, the establishment of marketing and distribution channels, and the improvement of our manufacturing capabilities. In the six months ended June 30, 2003, net cash used in operating activities primarily related to our net loss of $5,339,000 and the following events: a decrease in accounts

payable and accrued expenses of $577,000 related to payment of bonuses and outstanding raw materials invoices and $788,000 of non-cash amortization of gain on the sale of assets to a related party that related to products acquired by Medtronic under a back-up supplier agreement at discounts from previously agreed prices. The cash used in these operating activities

was offset by non-cash charges for depreciation and amortization of $822,000 and stock based compensation of $431,000, and other current assets of $268,000 primarily related to the collection of non-trade receivables. In the six months ended June 30, 2002, net cash used in operating activities primarily related to our net loss of $4,537,000, increases in accounts receivable of $1,312,000 and inventory of $477,000, offset by non-cash charges of $723,000 of depreciation and amortization and $751,000 for stock based compensation. Our working capital requirements fluctuate with changes in our operating activities that include such items as sales and manufacturing costs, which affect the levels of accounts receivable, inventories and current liabilities. We expect to use less cash in operating activities as our product lines become more profitable, further offsetting the associated costs.

Net cash provided by investing activities was $2,348,000 and $8,312,000 for the six months ended June 30, 2003 and 2002, respectively. Net cash provided by investing activities for the six months ended June 30, 2003 consisted of net proceeds from the sale of short-term investments, which was offset by the purchase of fewer short-term investments (i.e. we cashed in short-term investments to fund our operating activities and our financing activities). In the six months ended June 30, 2003 we purchased $531,000 in property and equipment primarily to support biomaterial manufacturing and research and development of the biologics platform technology and incurred $344,000 of costs associated with the acquisition of StemSource related to additional professional services and excess facility capacity relating to a StemSource lease. Net cash provided by investing activities for the six months ended June 30, 2002 consisted of net proceeds from the purchase and sale of short-term investments, which was offset by capital expenditures and loans (which have been repaid) to our corporate officers. We expect to continue to have cash provided by investing activities as we sell our short-term investments to provide cash for our operating activities and property and equipment purchases.

Net cash used in financing activities was $409,000 and $3,055,000 for the six months ended June 30, 2003 and 2002, respectively. Net cash used in financing activities for the six months ended June 30, 2003 was primarily related to $249,000 for our repurchase of 63,499 shares of our common stock on the open market at an average price of $3.92 per share and $173,000 for payments of long term obligations. Net cash used by financing activities for thesix months ended June 30, 2002 was primarily related to $2,783,000 for the repurchase of 836,945 shares of our common stock at an average price of $3.33 and $225,000 for payments toward long term obligations. On April 9, 2002 and September 17, 2002, the Board of Directors amended the April 3, 2001 authorization to purchase treasury stock and authorized the repurchase of up to 3,000,000 shares of the Company's common stock in the open market, from time to time until September 16, 2003, subject to the Company's assessment of market conditions and buying opportunities, and at a purchase price per share not to exceed €15.00, based on the exchange rate in effect on September 17, 2002.

In October 2000, we issued $2,433,000 of equipment financing promissory notes that mature in October 2005 at an interest rate of 9.3%. In 2002 we prepaid $621,000 relating to a 48 month promissory note and the lender changed the terms of this promissory note to bear interest at 8.8% per annum with principal and interest due in monthly payments of approximately $34,000, maturing over 35 months and secured by equipment with a cost of $1,442,000.

As of June 30, 2003, we had property and equipment of $6,678,000, less accumulated depreciation of $3,207,000, to support our clinical, research, development, manufacturing and administrative activities. Our capital expenditures were $531,000 and $761,000 for the six months ended June 30, 2003 and 2002, respectively. We expect capital expenditures for the next twelve months to be approximately $500,000 as we acquire additional equipment and expand our facilities that include capital expenditures for our biologics platform technology. We intend to pay for future capital expenditures with available working capital.

The following summarizes our contractual obligations and other commitments at June 30, 2003, and the effect such obligations could have on our liquidity and cash flow in future periods:

	Payments due by period				
Contractual Obligations	**Total**	**Less than 1 year**	**1 – 3 years**	**3 – 5 years**	**More than 5 years**
Long-Term Debt Obligations	$ 1,007,000	$ 426,000	$ 581,000	$ —	$ —
Operating Lease Obligations	4,256,000	1,026,000	2,702,000	528,000	—
Total	$ 5,263,000	$ 1,452,000	$ 3,283,000	$ 528,000	$ —

Critical Accounting Policies

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires us to make estimates and assumptions that affect the reported amounts of our assets, liabilities, revenues and expenses, and that affect our disclosure of contingent assets and liabilities. While our estimates are based on assumptions we consider reasonable at the time they were made, our actual results may differ from our estimates, perhaps significantly. If results differ from our estimates, we will make adjustments to our financial statements as we become aware of the necessity for an adjustment. Specifically, we make estimates in the following areas:

Revenue Recognition. We sell our products to hospitals and distributors. Revenue from sales to hospitals is recognized upon delivery of the product. We have agreements with our distributors that title and risk of loss pass upon shipment of the products to the distributor. We warrant that our products are free from manufacturing defects at the time of shipment to the distributor. Revenue is recognized upon shipment of products to distributors following receipt and acceptance of a distributor's purchase order.

Revenue from license agreements is recognized ratably over the term of the agreement, provided no significant obligations remain.

We recognize revenue from the collection and storage of Stem Cell rich adipose tissue. In our StemBank operations, we recognize revenue when the collection procedure is performed and the adipose tissue is received by MacroPore; fees from the procedure are fixed and determinable, and payment is probable. We use the residual method to recognize revenue when a procedure includes elements to be delivered at a future date if evidence of the fair value of

all undelivered elements exists. If evidence of the fair value of the undelivered elements does not exist, revenue is deferred on all elements and recognized when all elements are delivered.

We recognize revenue from Stem Cell storage services as the services are performed.

We earn revenue for performing services under development agreements. Milestone payments are considered to be payments received for the accomplishment of a discrete, substantive earnings event. The non-refundable payment arising from the achievement of a defined milestone is recognized as revenue when the performance criteria for that milestone have been met if substantive effort is required to achieve the milestone, the amount of the milestone payments appears reasonably commensurate with the effort expended and collection of the payment is reasonably assured. Income earned under development agreements are classified under revenues in our statement of operations. The costs associated with development agreements are recorded as research and development expense.

Additionally, we earn revenue from contracted development arrangements. These arrangements are generally time and material arrangements and accordingly any revenue is recognized as services are

performed. Any costs related to these arrangements are recognized as cost of revenue as these costs are incurred.

A majority of our revenues are from Medtronic, under its Distribution Agreement dated January 5, 2000 and amended December 22, 2000 and October 8, 2002, as well as its Development and Supply Agreement dated January 5, 2000 and amended December 22, 2000 and September 30, 2002.

Allowance for doubtful accounts. We provide a reserve against our receivables for estimated losses that may result from our customers' inability to pay. These reserves are based on known uncollectible accounts, aged receivables, historical losses and our estimate of our customers' credit-worthiness. Should a customer's account become past due, we generally place a hold on the account and discontinue further shipments to that customer, minimizing further risk of loss. The likelihood of our recognition of a material loss on an uncollectible account mainly depends on deterioration in the economic financial strength of the customer and the general business environment. Medtronic is our single largest customer, directly accounting for 86.7% and 99.5% of our revenues in the six months ended June 30, 2003 and 2002, respectively. We believe that our allowance for doubtful accounts as of June 30, 2003 with respect to Medtronic's account is sufficient, given Medtronic's collection history and overall financial strength.

Inventory. We state inventories at the lower of average cost, determined on the first-in first-out method, or fair market value. We review the components of our inventory on a regular basis for potential excess, obsolete and impaired inventory, based on estimated future usage. The likelihood of any material adjustment of our stated inventory depends on whether there are significant changes in the competitive conditions in which we operate, new product introductions by us or our competitors, or fluctuations in customer demand.

We estimate our labor and overhead costs based on the estimated utilization of our labor force and manufacturing facilities. We periodically evaluate these costs in order to determine that any excess capacity is treated as a period expense rather than capitalized. The likelihood of a material change in our estimates of labor and overhead costs is directly related to manufacturing volume, which can vary significantly between reporting periods.

Accounting for income taxes: As part of preparing our condensed consolidated financial statements we are required to estimate our income taxes in each of the jurisdictions in which we operate. This process involves us estimating our actual current tax exposure together with assessing temporary differences resulting from differing treatment of items, such as deferred revenue, for tax and accounting purposes. These differences result in deferred tax assets and liabilities. We establish valuation allowances, when necessary, to reduce deferred tax assets to the amount we expect to realize, using a "more likely than not" standard.

We have established a full valuation allowance against our deferred tax assets due to the uncertainty surrounding the realization of such assets, which consist mostly of net operating loss carryforwards. We periodically evaluate the recoverability of the deferred tax asset. The likelihood of a material change in our expected realization of these assets depends on our generation of future taxable income, our ability to deduct tax loss carryforwards against future taxable income and the effectiveness of our tax planning strategies in the various tax jurisdictions that we operate in. At such time as it is determined that it is more likely than not that the deferred assets are realizable, the valuation allowance will be reduced.

Unearned Compensation

We record unearned compensation for options granted to employees as the difference between the exercise price of options granted and the fair market value of our common stock on the date of grant.

Unearned compensation is amortized to stock based compensation expense and reflected as such in the Statement of Operations and Comprehensive Income (Loss). Unearned compensation recorded through June 30, 2003 was $6,665,000 with an accumulated amortization, net of charges reversed during the period for the forfeiture of unvested awards, of $6,030,000. The remaining $635,000 as of June 30, 2003 will be amortized using the straight-line method over the remaining vesting periods of the options, which generally vest over a four year period from the date of grant. We expect to record amortization expense for unearned compensation of $422,000 for the period July 1, 2003 to December 31, 2003 and $213,000 in 2004. The amount of unearned compensation expense recorded in future periods may decrease if unvested options for which unearned compensation has been recorded are subsequently forfeited.

Recent Accounting Pronouncements

In August 2001, the FASB issued SFAS No. 143, "Accounting for Asset Retirement Obligations." SFAS No. 143 addresses financial accounting and reporting for obligations associated with the retirement of tangible long-lived assets and the associated asset retirement costs. It applies to all entities and to legal obligations associated with the retirement of long-lived assets that result from the acquisition, construction, development and/or normal operation of long-lived assets, except for some lessee obligations. SFAS No. 143 is effective for financial statements issued for fiscal years beginning after June 15, 2002. The adoption of SFAS No. 143 did not have a material impact on our consolidated financial position or consolidated results of operations.

In April 2002, the FASB issued SFAS No. 145, Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections. SFAS No. 145 updates, clarifies and simplifies existing accounting pronouncements including (i) rescinding Statement No. 4, which required all gains and losses from extinguishment of debt to be aggregated and, if material, classified as an extraordinary item, net of related income tax effect, and (ii) amending Statement No. 13 to require that certain lease modifications that have economic effects similar to sale-leaseback transactions be accounted for in the same manner as sale-leaseback transactions. SFAS No. 145 is effective for fiscal years beginning after May 15, 2002, with early adoption of the provisions related to the rescission of Statement No. 4 encouraged. The adoption of SFAS No. 145 did not have a material impact on our consolidated financial position or consolidated results of operations.

In June 2002, the FASB issued SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities." SFAS No. 146 addresses significant issues regarding the recognition, measurement, and reporting of costs associated with exit and disposal activities, including restructuring activities. SFAS No. 146 also addresses recognition of certain costs related to terminating a contract that is not a capital lease, costs to consolidate facilities or relocate employees, and termination benefits provided to employees that are involuntarily terminated under the terms of a one-time benefit arrangement that is not an ongoing benefit arrangement or an individual deferred-compensation contract. SFAS No. 146 is effective for exit or disposal activities that are initiated after December 31, 2002. The adoption of SFAS No. 146 did not have a material impact on our consolidated financial position or consolidated results of operations.

In December 2002, the FASB issued FASB Interpretation No. 45 (FIN 45). FIN 45 provides guidance on how companies should record and disclose "guarantees." The primary principle of FIN 45 is that guarantees must be recorded as a liability, regardless of the probability of occurrence. The amount of the liability to be accrued depends on the likelihood of the liability to occur. The liability recognition provisions of FIN 45 shall be applied on a prospective basis to guarantees issued or modified after December 31, 2002. Additionally, FIN 45 requires certain disclosures about guarantees in our December 31, 2002 consolidated financial statements. The adoption of FIN 45 did not have a material impact on our consolidated financial position or consolidated results of operations as we currently do not have any

guarantees falling within the scope of this standard.

In December 2002, the FASB issued SFAS No. 148, "Accounting for Stock-Based Compensation - Transition and Disclosure – An Amendment of FASB Statement No. 123 (SFAS 148)." This Statement provides alternative methods of transition for a voluntary change to the fair value based method of accounting for stock-based employee compensation and requires prominent disclosures in both annual and interim financial statements about the method of accounting for stock-based employee compensation and the effect of the method used on reported results. We have elected not to adopt the recognition and measurement provisions of SFAS No. 123 and continue to account for our stock-based employee compensation plan under APB Opinion No. 25 and related interpretations. We have adopted the interim disclosure provisions required by SFAS 148 for our March 31, 2003 Form 10-Q.

In January 2003, the FASB issued Interpretation No. 46 (FIN 46), "Consolidation of Variable Interest Entities". FIN 46 clarifies the application of Accounting Research Bulletin No. 51 - Consolidated Financial Statements to those entities defined as "Variable Interest Entities" (more commonly referred to as special purpose entities) in which equity investors do not have the characteristics of a "controlling financial interest" or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. FIN 46 applies immediately to all Variable Interest Entities created after January 31, 2003, and by the beginning of the first interim or annual reporting period commencing after June 15, 2003 for Variable Interest Entities created prior to February 1, 2003. We do not expect this interpretation to have a material effect on our consolidated financial position or consolidated results of operations as we currently do not have any variable interest entities falling within the scope of FIN 46.

In April 2003, the FASB issued SFAS No. 149, "Amendment of Statement 133 on Derivative Instruments and Hedging Activities." SFAS No. 149 amends and clarifies accounting for derivative instruments, including certain derivative instruments embedded in other contracts and for hedging activities under SFAS 133. In particular, SFAS No. 149 clarifies under what circumstances a contract within an initial net investment meets the characteristic of a derivative and when a derivative contains a financing component that warrants special reporting in the statement of cash flows. SFAS No. 149 is generally effective for contracts entered into or modified after June 30, 2003. We do not expect this interpretation to have a material effect on our consolidated financial position or consolidated results of operations as we currently do not have any derivative instruments and hedging activities falling within the scope of SFAS No. 149.

In May 2003, the FASB issued SFAS No. 150, "Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity." SFAS No. 150 establishes standards for how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity. It requires that an issuer classify a financial instrument that is within its scope as a liability (or an asset in some circumstances). Many of those instruments were previously classified as equity. SFAS No. 150 is effective for financial instruments entered into or modified after May 31, 2003, and otherwise is effective at the beginning of the first interim period beginning after June 15, 2003. We do not expect this interpretation to have a material effect on our consolidated financial position or consolidated results of operations.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risk related to fluctuations in interest rates and in foreign currency exchange rates.

Interest Rate Exposure

Our exposure to market risk due to fluctuations in interest rates relates primarily to short-term investments. These short-term investments, reported at an aggregate fair market value of $16,608,000 as of June 30, 2003, consist primarily of investments in debt instruments of financial institutions, corporations with strong credit ratings and United States government obligations. These securities are subject to interest rate risk inasmuch as their fair value will fall if market interest rates increase. If market interest rates were to increase immediately and uniformly by 100 basis points from the levels prevailing at June 30, 2003, for example, and assuming average investment duration of nine months, the fair value of the portfolio would not decline by a material amount. We do not use derivative financial instruments to mitigate the risk inherent in these securities. However, we do attempt to reduce such risks by generally limiting the

maturity date of such securities, diversifying our investments and limiting the amount of credit exposure with any one issuer. We believe that we currently have the ability to hold these investments until maturity and, therefore, believe that reductions in the value of such securities attributable to short-term fluctuations in interest rates would not materially affect our financial position, results of operations or cash flows. Changes in interest rates would, of course, affect the interest income which we earn on our cash balances after re-investment.

Foreign Currency Exchange Rate Exposure

Our exposure to market risk due to fluctuations in foreign currency exchange rates relates primarily to our cash balances in Europe. Although we transact business in various foreign countries, settlement amounts are usually based on the U.S. dollar. Transaction gains or losses resulting from cash balances and revenues have not been significant in the past and we are not engaged in any hedging activity in the Euro or other currencies. Based on our cash balances and revenues derived from markets other than the United States for the six months ended June 30, 2003, a hypothetical 10% adverse change in the Euro against the U.S. dollar would not result in a material foreign currency exchange loss. Consequently, we do not expect that reductions in the value of such sales denominated in foreign currencies resulting from even a sudden or significant fluctuation in foreign exchange rates would have a direct material impact on our financial position, results of operations or cash flows.

Notwithstanding the foregoing, the indirect effect of fluctuations in interest rates and foreign currency exchange rates could have a material adverse effect on our business, financial condition and results of operations. For example, foreign currency exchange rate fluctuations may affect international demand for our products. In addition, interest rate fluctuations may affect our customers' buying patterns. Furthermore, interest rate and currency exchange rate fluctuations may broadly influence the United States and foreign economies resulting in a material adverse effect on our business, financial condition and results of operations.

Foreign currency exchange rates can be obtained from the website at www.oanda.com.

Risk Factors

We are subject to the following significant risks, among others:

We have a limited operating history; our operating results can be volatile

We commenced operations in May 1997 and therefore our prospects must be evaluated in light of the risks and difficulties frequently encountered by emerging companies and particularly by such companies in rapidly evolving and technologically advanced fields such as the medical device field. Due to our limited operating history, comparisons of our year-to-year operating results are not necessarily meaningful and the results for any periods should not be relied upon as an indication for future performance. Since our limited operating history makes the prediction of future results difficult or

impossible, our recent revenue growth should not be taken as an indication of any future growth or of a sustainable level of revenue.

Moreover, our operating results can vary substantially from analyst expectations and from previous periodic results for many reasons, including the timing of product introductions and distributor purchase orders. Also, the sale of our craniomaxillofacial bone fixation implant and accessory product line in 2002, which had represented a large portion of our revenues, will distort quarterly and annual earning comparisons through 2003. Earnings surprises can have a disproportionate effect on the stock prices of emerging companies such as ours. Also, our stock price is likely to be disproportionately affected by changes which generally affect the economy, the stock market or the medical device industry.

We have never been profitable

We have incurred net losses in each year since we started doing business, including net losses of $5,339,000 for the six months ended June 30, 2003. These losses have resulted primarily from expenses associated with our research and development activities, including extensive *in vitro* testing and numerous preclinical studies and general and administrative expenses, as well as. We anticipate that our recurring operating expenses will increase for the next several years, as our research and development expenses may increase in order to develop and market new products and fund additional preclinical research and possibly clinical trials. We expect to continue to incur losses at least through the end of 2003, and the amount of future net losses and time necessary to reach profitability are somewhat uncertain. Even if our bone fixation and thin film medical device product lines achieve profitability, development-stage losses related to our development of stem cell regenerative technology could keep us in a loss position on a consolidated basis for several years.

We are adopting a high-risk strategy

In the second half of 2002 we sold our craniomaxillofacial bone fixation implant and accessories product line to Medtronic, and announced an agreement to acquire StemSource, which is a development-stage adult stem cell company. Our craniomaxillofacial product line was relatively stable and slower-growth, compared to our retained musculoskeletal bone fixation implant and accessories product line and our thin film for soft-tissue repair and regeneration. By focusing on these less-mature and more volatile product areas, we accept more risk. In addition, we intend to use the cash we received from the sale of the craniomaxillofacial product line to finance the newly acquired StemSource and its development-stage cash needs. This is a high-risk strategy because there can be no assurance that our StemSource technology will ever be developed into commercially viable products (scientific risk), that we will be able to successfully to manage a company in a different business than we have operated in the past (operational risk), that we will be able to use our medical device products to deliver stem cells where needed in the body (strategic risk), or that our cash resources will be adequate to develop the StemSource technology until it becomes profitable (if ever) while still serving the cash needs of our medical device product lines (financial risk). Instead of using the cash received from selling that product line to reinvest in our core business, we are using it in one of the riskiest industries in the entire economy. This fundamentally changes our risk/reward profile and may make our stock an unsuitable investment for some investors.

We depend on recently introduced products and anticipated new products, which subject us to development and marketing risks

We are in the early stage of commercialization with many of our products although we have derived revenue from sales of certain products to our distributors, particularly Medtronic, Inc. We believe that our long-term viability and growth will depend in large part on receiving additional regulatory clearances

or approvals and expanding our sales and marketing for our existing products and new products resulting from our research and development activities. We are presently pursuing product opportunities in musculoskeletal bone fixation and soft tissue repair and regeneration throughout the body that will require extensive additional capital investment, research, development, clinical testing and regulatory clearances or approvals prior to commercialization. There can be no assurance that our product development programs will be successfully completed or that required regulatory clearances or approvals will be obtained on a timely basis, if at all. Most of our stem cell related products and /or services are years away.

Moreover, the various applications and uses of our resorbable surgical implants are relatively new and evolving. The successful development and market acceptance of our products are subject to inherent developmental risks, including ineffectiveness or lack of safety, unreliability, failure to receive necessary regulatory clearances or approvals, high commercial cost and preclusion or obsolescence resulting from third parties' proprietary rights or superior or equivalent products, as well as general economic conditions affecting purchasing patterns. There can be no assurance that we or our distribution partners will be able to successfully commercialize or achieve market acceptance of our technologies or products, or that our competitors will not develop competing technologies that are less expensive or otherwise superior to ours. The failure to successfully develop and market our new products or receive the required regulatory clearances or approvals could have a substantial negative effect on the results of our operations and financial condition.

We rely on Medtronic to distribute our products

We have limited experience in sales, marketing and distribution. Therefore, our strategy for sales and marketing of our resorbable products has included entering into agreements with other companies to market many of our current and certain future products incorporating our technology. We have derived the vast majority of our 2003 and 2002 revenues from the sale of products to our distribution partner Medtronic Inc. (Medtronic). Although we have engaged a direct sales force to market our SurgiWrap™ bioresorbable film product line in the United States and we have entered into independent international distribution agreements in foreign countries for our bioresorbable product lines, we cannot guarantee that this sales force or international distributors will adequately penetrate the markets to generate significant revenues to offset our reliance on Medtronic.

We remain significantly dependent on Medtronic to generate sales revenues for many of our products. The amount and timing of resources which may be devoted to the performance of Medtronic's contractual responsibilities are not within our control. There can be no guarantee that Medtronic will perform its obligations as expected, pay us any additional option or license fees or market any new products under the distribution agreements, or that we will derive any significant revenue from such arrangements.

The prices which Medtronic pays us are fixed, pending biannual price reviews, based on a percentage of Medtronic's historic selling prices to its customers. If our costs increase but our selling prices remain fixed, our profit margin will suffer.

Medtronic owns approximately 6.9% of our stock, which may limit our ability to negotiate commercial arrangements optimally with Medtronic.

Although Medtronic has exclusive distribution rights to our co-developed spinal implants, Medtronic is free to pursue existing or alternative technologies in preference to our technology in the spine.

There can be no assurance that our interests will continue to coincide with those of Medtronic or that

Medtronic will not develop independently or with third parties products which could compete with ours or that disagreement over rights or technology or other proprietary interests will not occur. To the extent that we choose not to or are unable to enter into future agreements, we would experience increased capital requirements to undertake the marketing or sale of some of our current and future products. There can be no assurance that we will be able to effectively market or sell our current or future products independently in the absence of such agreements. The loss of the marketing services provided by Medtronic, or the loss of revenues generated by Medtronic could have a substantial negative effect on the results of our operations and financial condition.

We are vulnerable to competition and technological change, and also to physicians' inertia

We compete with many domestic and foreign companies in developing our technology and products, including medical device, pharmaceutical and biopharmaceutical companies. Many of our competitors and potential competitors have substantially greater financial, technological, research and development, marketing and personnel resources than do we. There can be no assurance that our competitors will not succeed in developing alternative technologies and products that are more effective, easier to use or more economical than those which we have developed or are in the process of developing or that would render our technology and products obsolete and non-competitive in these fields. In general, we do not have the legal right to preclude other companies from making products that are similar to ours or perform similar functions.

These competitors may also have greater experience in developing products, conducting clinical trials, obtaining regulatory clearances or approvals, and manufacturing and marketing such products. Certain of these competitors may obtain patent protection, approval or clearance by the U.S. Food and Drug Administration "FDA" or product commercialization earlier than us, any of which could have a substantial negative effect on our business. Finally, under the terms of our distribution agreements, Medtronic and our other partners may pursue parallel development of other technologies or products, which may result in a partner developing additional products that will compete with our products.

We also compete with manufacturers of traditional non-bioresorbable implants, such as titanium implants. Doctors have historically been slow to adopt new technologies such as ours, whatever the merits, when older technologies continue to be supported by established providers. Overcoming such inertia often requires other very significant marketing expenditures or definitive product superiority.

We do not have much manufacturing experience

We have a limited manufacturing history and limited experience in manufacturing some of our products. Our future success is dependent in significant part on our ability to manufacture products in commercial quantities, in compliance with regulatory requirements and in a cost-effective manner. Production of some of our products in commercial-scale quantities may involve unforeseen technical challenges and may require significant scale-up expenses for additions to facilities and personnel. There can be no guarantee that we will be able to achieve large-scale manufacturing capabilities for some of our products or that we will be able to manufacture these products in a cost-effective manner or in quantities necessary to allow us to achieve profitability. Our

2002 sale of craniomaxillofacial production assets to Medtronic deprives us of some economies of scale in manufacturing. If we are unable to sufficiently meet Medtronic's requirements for certain products as set forth under their agreement, Medtronic may itself then manufacture and sell such product and only pay us royalties on the sales. The resulting loss of payments from Medtronic for the purchase of these products would have a substantial negative effect on the results of our operations and financial condition.

We have to maintain quality assurance certification and manufacturing approvals

The manufacture of our products is subject to periodic inspection by regulatory authorities and distribution partners, and our manufacture of products for human use is subject to regulation and inspection from time to time by the FDA for compliance with the FDA's Quality System Regulation "QSR" requirements, as well as equivalent requirements and inspections by state and non-U.S. regulatory authorities. There can be no guarantee that the FDA or other authorities will not, during the course of an inspection of existing or new facilities, identify what they consider to be deficiencies in our compliance with QSRs or other requirements and request, or seek, remedial action.

Failure to comply with such regulations or delay in attaining compliance may adversely affect our manufacturing activities and could result in, among other things, injunctions, civil penalties, FDA refusal to grant premarket approvals or clearances of future or pending product submissions, fines, recalls or seizures of products, total or partial suspensions of production and criminal prosecution. There can be no assurance that we will be able to obtain additional necessary regulatory approvals or clearances on a timely basis, if at all. Delays in receipt of or failure to receive such approvals or clearances or the loss of previously received approvals or clearances could have a substantial negative effect on the results of our operations and financial condition.

We depend on a sole source supplier for our crucial raw material

We currently purchase the high molecular weight, medical grade, lactic acid copolymer used in manufacturing most of our products, from a single qualified source. Although we have a contract with B.I. Chemicals, Inc., which guarantees continuation of supply through August 15, 2004, we cannot guarantee that they will elect to continue the contract beyond that date, or that they will not elect to discontinue the manufacture of the material. They have agreed that if they discontinue manufacturing they will either find a replacement supplier, or provide us with the necessary technology to self-manufacture the material, either of which could mean a substantial increase in material costs. Also, despite this agreement they might fail to do these things for us. Under the terms of the contract, B.I. Chemicals, Inc. may choose to raise their prices upon nine months prior notice which may also result in a substantially increased material cost. Although we believe that we would be able to obtain the material from at least one other source in the event of a failure of supply, there can be no assurance that we will be able to obtain adequate increased commercial quantities of the necessary high quality within a reasonable period of time or at commercially reasonable rates. Lack of adequate commercial quantities or inability to develop alternative sources meeting regulatory requirements at similar prices and terms within a reasonable time or any interruptions in supply in the future could have a significant negative effect on our ability to manufacture products, and, consequently, could have a material adverse effect on the results of our operations and financial condition.

We may not be able to protect our proprietary rights

Our success depends in part on whether we can obtain additional patents, maintain trade secret protection and operate without infringing on the proprietary rights of third parties. We have several U.S. patents for the design of our bioresorbable plates and high torque screws and one for our SurgiWrap™ bioresorbable film, and we have filed applications for various additional U.S. patents, as well as certain corresponding patent applications outside the United States, relating to our technology. However, we believe we cannot patent the use of our lactic acid copolymer for surgical implants, nor are our particular implants generally patentable. There can be no assurance that any of the pending patent applications will be approved, or that we will develop additional proprietary products that are patentable, or that any patents issued to us will provide us with competitive advantages or will not be challenged by any third parties or that the patents of others will not prevent the commercialization of products incorporating our technology. Furthermore, there can be no guarantee that others will not independently develop similar products, duplicate any of our products or design around our patents.

Our stem cell technology license agreement with the University of California Regents contains certain developmental milestones, which if not achieved could result in the loss of exclusivity or loss of the license rights. The loss of such rights could significantly impact our ability to continue the development of the stem cell technology and/or commercialize related products.

Our commercial success will also depend, in part, on our ability to avoid infringing patents issued to others. If we were judicially determined to be infringing any third party patent, we could be required to pay damages, alter our products or processes, obtain licenses or cease certain activities. If we are required in the future to obtain any licenses from third parties for some of our products, there can be no guarantee that we would be able to do so on commercially favorable terms, if at all. Patent applications are not immediately made public, so we might be surprised by the grant to someone else of a patent on a technology we are actively using.

Litigation, which would result in substantial costs to us and diversion of effort on our part, may be necessary to enforce any patents issued or licensed to us or to determine the scope and validity of third party proprietary rights.

If our competitors claim technology also claimed by us and prepare and file patent applications in the United States, we may have to participate in interference proceedings declared by the U.S. Patent and Trademark Office to determine priority of invention, which could result in substantial costs to and diversion of effort, even if the eventual outcome is favorable to us.

Any such litigation or interference proceeding, regardless of outcome, could be expensive and time consuming. Litigation could subject us to significant liabilities to third parties and require disputed rights to be licensed from third parties or require us to cease using certain technology.

In addition to patents, which as noted cannot protect the fundamentals of our technology and our business, we also rely on unpatented trade secrets and proprietary technological expertise. We rely, in part, on confidentiality agreements with our distribution partners, employees, advisors, vendors and consultants to protect our trade secrets and proprietary technological expertise. There can be no guarantee that these agreements will not be breached, or that

we will have adequate remedies for any breach, or that our unpatented trade secrets and proprietary technological expertise will not otherwise become known or be independently discovered by competitors.

Failure to obtain or maintain patent or trade secret protection, for any reason, third party claims against our patents, trade secrets or proprietary rights, or our involvement in disputes over our patents, trade secrets or proprietary rights, including involvement in litigation, could have a substantial negative effect on the results of our operations and financial condition.

We may not be able to protect our intellectual property in countries outside the United States

Intellectual property law outside the United States is uncertain and in many countries is currently undergoing review and revisions. The laws of some countries do not protect our patent and other intellectual property rights to the same extent as United States laws. We currently have pending patent applications in the European Patent Office, Australia, Japan, Canada, China, Korea and Mexico and we have published other international patent applications.

We are subject to intensive US FDA regulation

As newly developed medical devices, our bioresorbable surgical implants must receive regulatory clearances or approvals from the FDA and, in many instances, from non-U.S. and state governments,

prior to their sale. Our current and future bioresorbable surgical implants for humans are subject to government regulation in the United States by the FDA under the Federal Food, Drug and Cosmetic Act. The FDA regulates the design/development process, clinical testing, manufacture, safety, labeling, sale, distribution and promotion of medical devices and drugs. Included among these regulations are premarket clearance and premarket approval requirements, design control requirements, and the Quality System Regulations / Good Manufacturing Practices. Other statutory and regulatory requirements govern, among other things, establishment registration and inspection, medical device listing, prohibitions against misbranding and adulteration, labeling and postmarket reporting.

The regulatory process can be lengthy, expensive and uncertain. Before any new medical device may be introduced to the market, the manufacturer generally must obtain FDA clearance or approval through either the 510(k) premarket notification process or the lengthier premarket approval application "PMA" process. It generally takes from three to 12 months from submission to obtain 510(k) premarket clearance although it may take longer. Approval of a PMA could take four or more years from the time the process is initiated. The 510(k) and PMA processes can be expensive, uncertain and lengthy, and there is no guarantee of ultimate clearance or approval. We expect that some of our future products under development will be subject to the lengthier PMA process. Securing FDA clearances and approvals may require the submission of extensive clinical data and supporting information to the FDA, and there can be no guarantee of ultimate clearance or approval. Failure to comply with applicable requirements can result in application integrity proceedings, fines, recalls or seizures of products, injunctions, civil penalties, total or partial suspensions of production, withdrawals of existing product approvals or clearances, refusals to approve or clear new applications or notifications and criminal prosecution.

Medical devices also are subject to post market reporting requirements for deaths or serious injuries when the device may have caused or contributed to the death or serious injury, and for certain device malfunctions that would be likely to cause or contribute to a death or serious injury if the malfunction were to recur. If safety or effectiveness problems occur after the product reaches the market, the FDA may take steps to prevent or limit further marketing of the product. Additionally, the FDA actively enforces regulations prohibiting marketing and promotion of devices for indications or uses that have not been cleared or approved by the FDA.

Our current medical implants are at different stages of FDA review. We currently have 510(k) clearances for a wide variety of products and we are constantly engaged in the process of obtaining additional clearances for new and existing products. There can be no guarantee that we will be able to maintain our existing 510(k) clearances or that it will be able to obtain the necessary 510(k) clearances or PMA approvals to market and manufacture our other products in the United States for their intended use on a timely basis, if at all. Delays in receipt of or failure to receive such clearances or approvals, the loss of previously received clearances or approvals, or failure to comply with existing or future regulatory requirements could have a substantial negative effect on the results of our operations and financial condition.

To sell in international markets will subject us to intensive regulation in foreign countries

In cooperation with our distribution partners, particularly Medtronic, we intend to market our current and future products both domestically and in many foreign markets. A number of risks are inherent in international transactions. In order for us to market our products in Europe, Canada and certain other non-U.S. jurisdictions, we need to obtain and maintain required regulatory approvals or clearances and must comply with extensive regulations regarding safety, manufacturing processes and quality. These regulations, including the requirements for approvals or clearances to market, may differ from the FDA regulatory scheme. International sales also may be limited or disrupted by political instability, price controls, trade restrictions and changes in tariffs. Additionally, fluctuations in currency exchange rates

may adversely affect demand for our products by increasing the price of our products in the currency of the countries in which the products are sold.

There can be no assurance that we will obtain regulatory approvals or clearances in all of the countries where we intend to market our products, or that we will not incur significant costs in obtaining or maintaining its foreign regulatory approvals or clearances, or that we will be able to successfully commercialize its current or future products in any foreign markets. Delays in receipt of approvals or clearances to market our products in foreign countries, failure to receive such approvals or clearances or the future loss of previously received approvals or clearances could have a substantial negative effect on the results of our operations and financial condition.

We may need to raise more cash in the future

If we do not increase our sales quickly enough or if we choose to invest additional cash in areas of promise, we may be required to seek additional capital to finance our operations in the future. As of June 30, 2003, we had $18,696,000 of cash, cash equivalents and short-term investments; we have always had negative cash flow from operations. Our 2002 sale of the craniomaxillofacial product line to Medtronic has buttressed that cash position, but our acquisition of StemSource will result in a substantial cash requirement for research and development. Other than our current equipment financing lines of credit, we currently have no commitments for any additional debt or equity financing, and there can be no guarantee that adequate funds for our operations from any additional debt or equity financing, our operating revenues, arrangements with distribution partners or from other sources will be available when needed or on terms attractive to us. The inability to obtain sufficient funds may require us to delay, scale back or eliminate some or all of our research or product development programs, manufacturing operations, clinical studies or regulatory activities or to license third parties to commercialize products or technologies that we would otherwise seek to develop ourselves, and could have a substantial negative effect on the results of our operations and financial condition.

We depend on a few key officers

Our performance is substantially dependent on the performance of our executive officers and other key scientific staff, including Christopher J. Calhoun, our President and Chief Executive Officer, Ari Bizimis, our Chief Financial Officer and Marc Hedrick, MD, our Chief Scientific Officer and Medical Director. We do not currently have “key person” life insurance policies on any of our employees. We believe that our future success in developing marketable products and achieving a competitive position will depend in large part upon whether we can attract and retain additional qualified management and scientific personnel. Competition for such personnel is intense, and there can be no assurance that we will be able to continue to attract and retain such personnel. The loss of the services of one or more of our executive officers or key scientific staff or the inability to attract and retain additional personnel and develop expertise as needed could have a substantial negative effect on our results of operations and financial condition.

We recently acquired StemSource and may undertake additional business acquisitions which will present risks associated with integrating new businesses

Mergers and acquisitions, especially in our industry, are inherently risky, and no assurance can be given that our current or future acquisitions will be successful and will not materially adversely affect our business, operating results, or financial condition. Our recent acquisition of StemSource, Inc., as well as any future acquisitions, involved numerous risks including, among others:

- difficulties and expenses incurred in the consummation of acquisitions and integration of the

operations, technologies, personnel and services or products of the acquired companies

- the risk of diverting management’s attention from normal daily operations
- potential difficulties in completing projects associated with in-process research and development
- risks of entering markets in which we have no or limited direct prior experience and where competitors in such markets have stronger market positions
- initial dependence on unfamiliar supply chains or relatively small supply partners
- insufficient revenues to offset increased expenses associated with acquisitions
- the potential loss of key employees of the acquired companies

We plan to continue to review potential acquisition candidates in the ordinary course of our business. As with the acquisition of StemSource, Inc., any future acquisitions would involve numerous business and integration risks.

We may not have enough product liability insurance

The testing, manufacturing, marketing and sale of our surgical implant products involve an inherent risk that product liability claims will be asserted against us, our distribution partners or licensees. There can be no guarantee that our current clinical trial and commercial product liability insurance is adequate or will continue to be available in sufficient amounts or at an acceptable cost, if at all. A product liability claim, product recall or other claim, as well as any claims for uninsured liabilities or in excess of insured liabilities, could have a substantial negative effect on the results of our operations and financial condition. Also, well publicized claims could cause our stock to fall sharply, even before the merits of the claims are decided by a court.

Our charter documents contain anti-takeover provisions

Our Amended and Restated Certificate of Incorporation and Bylaws contain certain provisions that could prevent or delay the acquisition of the Company by means of a tender offer, proxy contest or otherwise, or could discourage a third party from attempting to acquire control of us, even if such events would be beneficial to the interests of the stockholders. Such provisions may have the effect of delaying, deferring or preventing a change of control of us and consequently could adversely affect the market price of our shares.

The trading market for our stock in the United States is not liquid and our European stock exchange listing recently changed

In the United States, our stock is traded through the Pink Sheets, which results in an illiquid market. Investors trading in this market may be disadvantaged in comparison to investors trading in our stock in Europe. Our stock had been traded on the Neuer Markt segment of the Frankfurt Stock Exchange, but the Neuer Markt closed in 2002. Our shares have since been listed on the “Prime Standard” segment of the Frankfurt Stock Exchange, but we cannot assure that this will result in a satisfactory trading market.

We pay no dividends

We currently intend not to pay any cash dividends for the foreseeable future.

Item 4. Controls and Procedures

(a) Evaluation of disclosure controls and procedures

Our chief executive officer and chief financial officer, after evaluating the effectiveness of our "disclosure controls and procedures" (as defined in Securities Exchange Act of 1934 Rules 13a-14 and 15d-14) as of a date (the "Evaluation Date") within 90 days before the filing date of this quarterly report, have concluded that as of the Evaluation Date, our disclosure controls and procedures are effective.

(b) Changes in internal controls

There were no significant changes in our internal controls or in other factors that could significantly affect those controls subsequent to the Evaluation Date.

PART II OTHER INFORMATION

Item 1. Legal Proceedings

From time to time, the Company has been involved in routine litigation incidental to the conduct of its business. The Company is not currently a party to any material legal proceeding.

Item 2. Changes in Securities and Use of Proceeds

On June 12, 2003, we sold 500 shares of unregistered common stock to an individual on the public market of the Frankfurt Stock Exchange, at a price of $3.88 per share. We did not use an underwriter, and we relied on the Regulation S exemption from the Securities Act's registration requirement.

Item 3. Defaults Upon Senior Securities

None

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

None

Item 5. Other Information

Properties and Facilities

Our main facility which we use for our corporate headquarters and for manufacturing is located at 6740 Top Gun Street, San Diego, California. We currently lease approximately 27,000 square feet of space at this location of which approximately 6,000 square feet is laboratory space, 12,000 square feet is office space and 9,000 square feet is manufacturing space. Our lease has a five-year term, expiring in 2008. We also lease:

- 14,000 square feet, of which approximately 4,000 square feet is for research and development and 10,000 square feet is office space at 6749 Top Gun Street, San Diego, California for a five-year term expiring in 2006.
- 16,000 square feet of additional research and technology facility located at 6749 Top Gun

Street, San Diego, California for a five year term expiring 2007.

- 5,800 square feet, of office space located at Ömühlweg 33, Königstein, Germany for use in marketing and administration for a five-year term, expiring in 2006.
- 15,000 square feet of which all is used for research and development, located at 1125 Business Center Circle, Thousand Oaks, California for a five-year term, expiring in 2006. This space became excess in July 2003.

We pay an aggregate of approximately $71,000 in rent per month for our properties located in the United States and approximately €10,000 ($12,000) in rent per month for our property in Germany.

Staff

As of June 30, 2003, we had 91 full-time employees, comprised of 31 employees in research and development, 22 employees in manufacturing, 18 employees in management and finance and administration and 20 employees in sales and marketing. As of June 30, 2002, we had 95 full-time employees, comprised of 24 employees in research and development, 27 employees in manufacturing, 17 employees in management and finance and administration, and 27 employees in sales and marketing. From time to time, we also employ independent contractors to support our administrative organizations. Our employees are not represented by any collective bargaining unit and we have never experienced a work stoppage.

Item 6. Exhibits and Reports on Form 8-K

a. Exhibits

3.2 Amended and Restated Bylaws of MacroPore Biosurgery, Inc.

4.1 Rights Agreement, dated as of May 19, 2003, between MacroPore Biosurgery, Inc. and Computershare Trust Company, Inc. as Rights Agent, which includes: as Exhibit A thereto, the Form of Certificate of Designation, Preferences and Rights of Series RP Preferred Stock of MacroPore Biosurgery, Inc.; as Exhibit B thereto, the Form of Right Certificate; and, as Exhibit C thereto, the Summary of Rights to Purchase Series RP Preferred Stock (filed as Exhibit 4.1 on Form 8-A which was filed on May 30, 2003 and incorporated by reference herein)

15.1 Letter re unaudited interim financial information

31.1 Certification of Principal Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

31.2 Certification of Principal Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

32.1 Certifications pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes — Oxley Act of 2002

b. Reports on Form 8-K

a. Reports on Form 8-K – Form 8-K filed on May 30, 2003 with regard to an event of May 29, 2003 – Item 5 (press release announcing the Company's Stockholder Rights Plan.)

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, in San Diego, California, on August 14, 2003.

MACROPORE BIOSURGERY, INC.

By: /s/ Christopher J. Calhoun
Christopher J. Calhoun
Chief Executive Officer, President

EXHIBIT INDEX

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AMENDED AND RESTATED BYLAWS

OF

MACROPORE BIOSURGERY, INC.

(a Delaware Corporation)

(AS OF MAY 28, 2003)

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AMENDED AND RESTATED BYLAWS

OF

MACROPORE BIOSURGERY, INC.

(a Delaware Corporation)

(AS OF MAY 28, 2003)

OFFICES

Principal Office. The Board of Directors shall fix the location of the principal executive office of the Corporation at any place within or outside the State of Delaware.

Additional Offices. The Board of Directors (the "***Board***") may at any time establish branch or subordinate offices at any place or places.

MEETING OF STOCKHOLDERS

Place of Meeting. All meetings of the stockholders for the election of directors shall be held at the principal office of the Corporation, at such place as may be fixed from time to time by the Board or at such other place either within or without the State of Delaware as shall be designated from time to time by the Board and stated in the notice of the meeting. Meetings of stockholders for any purpose may be held at such time and place within or without the State of Delaware as the Board may fix from time to time and as shall be stated in the notice of the meeting or in a duly executed waiver of notice thereof.

Annual Meeting.

Annual meetings of stockholders shall be held at such date and time as shall be designated from time to time by the Board and stated in the notice of the meeting. At such annual meetings, the stockholders shall elect a Board and transact such other business as may properly be brought before the meetings.

To be properly brought before an annual meeting, business must be: (A) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the Board, (B) otherwise properly brought before the meeting by or at the direction of the Board, or (C) otherwise properly brought before the meeting by a stockholder. For business to be properly brought before an annual meeting by a stockholder, the stockholder must have given timely notice thereof in writing to the Secretary of the Corporation. To be timely, a stockholder's notice must be delivered to or mailed and received at the principal executive offices of the Corporation no later than the date specified in the Corporation's proxy

statement released to stockholders in connection with the previous year's annual meeting of stockholders, which date shall be not less than one hundred twenty (120) calendar days in advance of the date of such proxy statement; provided, however, that in the event that no annual meeting was held in the previous year or the date of the annual meeting has been changed by more than thirty (30) days from the date contemplated at the time of the previous year's

proxy statement, notice by the stockholder to be timely must be so received a reasonable time before the solicitation is made. A stockholder's notice to the Secretary shall set forth as to each matter the stockholder proposes to bring before the annual meeting: (i) a brief description of the business desired to be brought before the annual meeting and the reasons for conducting such business at the annual meeting, (ii) the name and address, as they appear on the Corporation's books, of the stockholder proposing such business, (iii) the class and number of shares of the Corporation which are beneficially owned by the stockholder, (iv) any material interest of the stockholder in such business and (v) any other information that is required to be provided by the stockholder pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "***1934 Act***"), in his capacity as a proponent of a stockholder proposal. In addition to the foregoing, in order to include information with respect to a stockholder proposal in the proxy statement and form of proxy for a stockholders meeting, a stockholder must provide notice as required by the regulations promulgated under the 1934 Act to the extent such regulations require notice that is different from the notice required above. Notwithstanding anything in these Bylaws to the contrary, no business shall be conducted at any annual meeting except in accordance with the procedures set forth in this paragraph (b) of this Section 0. The chairman of the annual meeting shall, if the facts warrant, determine and declare at the meeting that business was not properly brought before the meeting and in accordance with the provisions of this paragraph (b), and, if he should so determine, he shall so declare at the meeting that any such business not properly brought before the meeting shall not be transacted.

Only persons who are nominated in accordance with the procedures set forth in this paragraph (c) shall be eligible for election as Directors. Nominations of persons for election to the Board may be made at a meeting of stockholders by or at the direction of the Board (or any duly appointed nominating committee of the Board) or by any stockholder of the Corporation entitled to vote in the election of Directors at the meeting who complies with the notice procedures set forth in this paragraph (c). Such nominations, other than those made by or at the direction of the Board (or any duly appointed nominating committee of the Board), shall be made pursuant to timely notice in writing to the Secretary of the Corporation in accordance with the provisions of paragraph (b) of this Section 0. Such stockholder's notice shall set forth (i) as to each person, if any, whom the stockholder proposes to nominate for election or re-election as a Director: (A) the name, age, business address and resident address of such person, (B) the principal occupation or employment of such person, (C) the class and number of shares of the Corporation that are beneficially owned by such person, (D) a description of all arrangements or understandings between the stockholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nominations are to be made by the stockholders, and (E) any other information relating to such person that is required to be disclosed in solicitations of proxies for election of Directors, or is otherwise required, in each case pursuant to Regulation 14A under the 1934 Act (including without limitation such person's written consent to being named in the proxy statement, if any, as a nominee and to serving as a Director if elected); and (ii) as to such stockholder giving notice, the information required to be provided pursuant to sub-items (ii), (iii) and (iv) of paragraph (b) of this Section 0. At the request of the Board, any person nominated by a stockholder for election as a Director shall furnish to the Secretary of the Corporation that information required to be set forth in the stockholder's notice of nomination which pertains to the nominee. No person shall be eligible for election as a Director of the Corporation unless nominated in accordance with the procedures set forth in this paragraph (c). The chairman of the meeting shall, if the facts warrant, determine and declare at the meeting that a nomination was not made in accordance with the procedures prescribed by these Bylaws, and if he should so determine, he shall so declare at the meeting, and the defective nomination shall be disregarded. For avoidance of doubt: this paragraph (c) does not pertain

to the presentation by stockholders or other persons of candidates to the Board (or any duly appointed nominating committee of the Board) for potential nomination by the Board (or nominating committee of the Board); if any such candidate is nominated by the Board (or nominating committee of the Board) it is irrelevant how his or her name was first presented to the Board (or nominating committee of the Board).

Special Meetings. Special meetings of the stockholders, for any purpose or purposes, unless otherwise prescribed by statue or by the Certificate of Incorporation, as amended from time to time, may only be called (as provided in this Section 0) by written request of the President, Chief Executive Officer or Chairman of the Board or by a majority of the Board and shall thereupon be called by the President or Secretary. Such request shall state the purpose or purposes of the proposed meeting. The place, date and time of any special meeting shall be determined by the Board of Directors. Such determination shall include the record date for determining the stockholders having the right of and to vote at such meeting.

Notice of Meetings. Written notice of stockholders' meetings, stating the place, date and time of the meeting and the purpose or purposes for which the meeting is called, shall be given to each stockholder entitled to vote at such meeting not less than ten (10) nor more than sixty (60) days prior to the meeting.

When a meeting is adjourned to another place, date or time, written notice need not be given of the adjourned meeting if the place, date and time thereof are announced at which the meeting at the adjournment is taken; provided, however, that if the date of any adjourned meeting is more than thirty (30) days after the date for which the meeting was originally noticed, or if a new record date is fixed for the adjourned meeting, written notice of the place, date and time of the adjourned meeting shall be given in conformity herewith. At any adjourned meeting, any business may be transacted which might have been transacted at the original meeting.

Business Matter of a Special Meeting. Business transacted at any special meeting of stockholders shall be limited to the purposes stated in the notice.

List of Stockholders. The officer in charge of the stock ledger of the Corporation or the transfer agent shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten (10) days prior to the meeting, at a place within the city where the meeting is to be held, which place, if other than the place of the meeting, shall be specified in the notice of the meeting. The list shall also be produced and kept at the place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present in person thereat.

Organization and Conduct of Business. The Chairman of the Board or, in his or her absence, the President of the Corporation or, in their absence, such person as the Board may have designated or, in the absence of such a person, such person as may be chosen by the holders of a majority of the shares entitled to vote who are present, in person or by proxy, shall call to order any meeting of the stockholders and act as Chairman of the meeting. In the absence of the Secretary of the Corporation, the Secretary of the meeting shall be such person as the Chairman appoints.

The Chairman of any meeting of stockholders shall determine the order of business and the procedure at the meeting, including such regulation of the manner of voting and the conduct of discussion as seems to him or her in order.

Quorum and Adjournments. Except where otherwise provided by law or the Certificate of Incorporation or these Bylaws, the holders of one-third of the stock issued and outstanding and entitled to vote, present in person or represented in proxy, shall constitute a quorum at all meetings of the stockholders. The stockholders present at a duly called or held meeting at which a quorum is present may continue to do business until adjournment, notwithstanding the withdrawal of enough stockholders to have less than a quorum if any action taken (other than adjournment) is approved by at least a majority of the shares required to constitute a quorum. At such adjourned meeting at which a quorum is present or represented, any business may be transacted which might have been transacted at the meeting as originally notified. If, however, a quorum shall not be present or represented at any meeting of the stockholders, the stockholders entitled to vote thereat who are present in person or represented by proxy shall have the power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present or represented.

Voting Rights. Unless otherwise provided in the Certificate of Incorporation, each stockholder shall at every meeting of the stockholders be entitled to one vote in person or by proxy for each share of the capital stock having voting power held by such stockholder.

Majority Vote. When a quorum is present at any meeting, the vote of the holders of a majority of the stock having voting power present in person or represented by proxy shall decide any question brought before such meeting, unless the question is one upon which by express provision of the statutes or of the Certificate of Incorporation or of these Bylaws, a different vote is required in which case such express provision shall govern and control the decision of such question.

Record Date for Stockholder Notice and Voting. For purposes of determining the stockholders entitled to notice of any meeting or to vote, or entitled to receive payment of any dividend or other distribution, or entitled to exercise any right in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board may fix, in advance, a record date, which shall not be more than sixty (60) days nor less than ten (10) days before the date of any such meeting nor more than sixty (60) days before any other action.

If the Board does not so fix a record date, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the business day next preceding the day on which notice is given or, if notice is waived, at the close of business on the business day next preceding the day on which the meeting is held.

Proxies. Every person entitled to vote for directors or on any other matter shall have the right to do so either in person or by one or more agents authorized by a written proxy signed by the person and filed with the Secretary of the Corporation. A proxy shall be deemed signed if the stockholder's name is placed on the proxy (whether by manual signature, typewriting, telegraphic transmission or otherwise) by the stockholder or the stockholder's attorney-in-fact. A validly executed proxy which does not state that it is irrevocable shall continue in full force and effect unless (i) revoked by the person executing it, before the vote pursuant to that proxy, by a writing delivered to the Corporation stating that the proxy is revoked or by a subsequent proxy executed by, or attendance at the meeting and voting in person by, the person executing the proxy; or (ii) written notice of the death or incapacity of the maker of that proxy is received by the Corporation before the vote pursuant to that proxy is counted; provided, however, that no proxy shall be valid after the expiration of eleven months from the date of the proxy, unless otherwise provided in the proxy.

Inspectors of Election. Before any meeting of stockholders the Board may appoint any person other than nominees for office to act as inspectors of election at the meeting or its adjournment. If no inspectors of election are so appointed, the Chairman of the meeting may, and on the request of any

stockholder or a stockholder's proxy shall, appoint inspectors of election at the meeting. The number of inspectors shall be either one (1) or three (3). If inspectors are appointed at a meeting on the request of one or more stockholders or proxies, the holders of a majority of shares or their proxies present at the meeting shall determine whether one (1) or three (3) inspectors are to be appointed. If any person appointed as inspector fails to appear or fails or refuses to act, the Chairman of the meeting may, and upon the request of any stockholder or a stockholder's proxy shall, appoint a person to fill that vacancy.

Action Without Meeting by Written Consent. No action shall be taken by the stockholders of the Corporation except at an annual or special meeting of stockholders called in accordance with these Bylaws, and no action shall be taken by the stockholders by written consent.

DIRECTORS

Number; Qualifications. The Board shall consist of not less than three (3) nor more than (9) directors. At each annual meeting of the stockholders, directors shall be elected for that class of directors whose terms are then expiring, except as provided in Section 0 and each director so elected shall hold office until his successor is elected and qualified or until his earlier resignation or removal. Directors need not be stockholders.

Resignation and Vacancies. A vacancy or vacancies in the Board shall be deemed to exist in the case of the death, resignation or removal of any director, or if the authorized number of directors be increased. Vacancies may be filled by a majority of the remaining directors, though less than a quorum, or by a sole remaining director, unless otherwise provided in the Certificate of Incorporation. The stockholders may elect a director or directors at any time to fill any vacancy or vacancies not filled by the directors. If the Board accepts the resignation of a director tendered to take effect at a future time, the Board shall have power to elect a successor to take office when the resignation is to become effective. If there are no directors in office, then an election of directors may be held in the manner provided by statute.

Removal of Directors. Unless otherwise restricted by statute, the Certificate of Incorporation or these Bylaws, any director or the entire Board may be removed, with or without cause, by the holders of at least a majority of the shares entitled to vote at an election of directors.

Powers. The business of the Corporation shall be managed by or under the direction of the Board which may exercise all such powers of the Corporation and do all such lawful acts and things which are not by statute or by the Certificate of Incorporation or by these Bylaws directed or required to be exercised or done by the stockholders.

Without prejudice to these general powers, and subject to the same limitations, the directors shall have the power to:

Select and remove all officers, agents, and employees of the Corporation; prescribe any powers and duties for them that are consistent with law, with the Certificate of Incorporation, and with these Bylaws; fix their compensation; and require from them security for faithful service;

Confer upon any office the power to appoint, remove and suspend subordinate officers, employees and agents;

Change the principal executive office or the principal business office in the State of California or any other state from one location to another; cause the Corporation to be qualified to do business in any other state, territory, dependency or country and conduct business within or without the State of California; and designate any place within or without the State of California for the holding of any stockholders meeting, or meetings, including annual meetings;

Adopt, make, and use a corporate seal; prescribe the forms of certificates of stock; and alter the form of the seal and certificates;

Authorize the issuance of shares of stock of the Corporation on any lawful terms, in consideration of money paid, labor done, services actually rendered, debts or securities canceled, tangible or intangible property actually received;

Borrow money and incur indebtedness on behalf of the Corporation, and cause to be executed and delivered for the Corporation's purposes, in the corporate name, promissory notes, bonds, debentures, deeds of trust, mortgages, pledges, hypothecations and other evidences of debt and securities;

Declare dividends from time to time in accordance with law;

Adopt from time to time such stock option, stock purchase, bonus or other compensation plans for directors, officers, employees and agents of the Corporation and its subsidiaries as it may determine; and

Adopt from time to time regulations not inconsistent with these Bylaws for the management of the Corporation's business and affairs.

Place of Meetings. The Board may hold meetings, both regular and special, either within or without the State of Delaware.

Annual Meetings. The annual meetings of the Board shall be held immediately following the annual meeting of stockholders, and no notice of such meeting shall be necessary to the Board, provided a quorum shall be present. The annual meetings shall be for the purposes of organization, and an election of officers and the transaction of other business.

Regular Meetings. Regular meetings of the Board may be held without notice at such time and place as may be determined from time to time by the Board.

Special Meetings. Special meetings of the Board may be called by the Chairman of the Board, the President, a Vice President or a majority of the Board upon one (1) day's notice to each director.

Quorum and Adjournments. At all meetings of the Board, a majority of the directors then in office shall constitute a quorum for the transaction of business, and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the Board, except as may otherwise be specifically provided by law or the Certificate of Incorporation. If a quorum is not present at any meeting of the Board, the directors present may adjourn the meeting from time to time, without notice other than announcement at the meeting at which the adjournment is taken, until a quorum shall be present. A meeting at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors, if any action taken is approved of by at least a majority of the required quorum for that meeting.

Action Without Meeting. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board or of any committee thereof may be taken without a meeting, if all members of the Board or committee, as the case may be, consent thereto in writing, and the writing or writings are filed with the minutes of proceedings of the Board or committee.

Telephone Meetings. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any member of the Board or any committee may participate in a meeting by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

Waiver of Notice. Notice of a meeting need not be given to any director who signs a waiver of notice or a consent to holding the meeting or an approval of the minutes thereof, whether before or after the meeting, or who attends the meeting without protesting, prior thereto or at its commencement, the lack of notice to such director. All such waivers, consents and approvals shall be filed with the corporate records or made a part of the minutes of the meeting.

Fees and Compensation of Directors. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, the Board shall have the authority to fix the compensation of directors. The directors may be paid their expenses, if any, of attendance at each meeting of the Board and may be paid a fixed sum for attendance at each meeting of the Board or a stated salary as director. No such payment shall preclude any director from serving the Corporation in any other capacity and receiving compensation therefor. Members of special or standing committees may be allowed like compensation for attending committee meetings.

Rights of Inspection. Every director shall have the absolute right at any reasonable time to inspect and copy all books, records and documents of every kind and to inspect the physical properties of the Corporation and also of its subsidiary corporations, domestic or foreign. Such inspection by a director may be made in person or by agent or attorney and includes the right to copy and obtain extracts.

COMMITTEES OF DIRECTORS

Selection. The Board may, by resolution passed by a majority of the entire Board, designate one or more committees, each committee to consist of one or more of the directors of the Corporation. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee.

In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or she or they constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in the place of any such absent or disqualified member.

Power. Any such committee, to the extent provided in the resolution of the Board, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to amending the

Certificate of Incorporation (except that a committee may, to the extent authorized in the resolution or resolutions providing for the issuance of shares of stock adopted by the Board as provided in Section 151(a) of the General Corporation Law of Delaware, fix any of the preferences or rights of such shares relating to dividends, redemption, dissolution, any distribution of assets of the Corporation or the conversion into, or the exchange of such shares for, shares of any other class or classes or any other series of the same or any other class or classes of stock of the Corporation), adopting an agreement of merger or consolidation, recommending to the stockholders the sale, lease or exchange of all or substantially all of the Corporation's property and assets, recommending to the stockholders a dissolution of the Corporation or a revocation of dissolution, removing or indemnifying directors or amending the Bylaws of the Corporation; and, unless the resolution or the Certificate of Incorporation expressly so provides, no such committee shall have the power or authority to declare a dividend or to authorize the issuance of stock or to adopt a certificate of ownership and merger. Such committee or committees shall have such name or names as may be determined from time to time by resolution adopted by the Board.

Committee Minutes. Each committee shall keep regular minutes of its meetings and report the same to the Board when required.

OFFICERS

Officers Designated. The officers of the Corporation shall be chosen by the Board and shall be a President, a Secretary and a Treasurer or Chief Financial Officer. The Board may also choose a Chairman of the Board, one or more Vice Presidents, one or more assistant Secretaries and assistant Treasurers, and any other officers the Board may appoint by resolution so long as such officers' titles and duties are not inconsistent with these Bylaws. Any number of offices may be held by the same person, unless the Certificate of Incorporation or these Bylaws otherwise provide.

Appointment of Officers. The officers of the Corporation, except such officers as may be appointed in accordance with the provisions of Section 0 or 0 of this Article V, shall be appointed by the Board, and each shall serve at the pleasure of the Board, subject to the rights, if any, of an officer under any contract of employment.

Subordinate Officers. The Board may appoint, and may empower the President to appoint, such other officers and agents as the business of the Corporation may require, each of whom shall hold office for such period, have such authority and perform such duties as are provided in the Bylaws or as the Board may from time to time determine.

Removal and Resignation of Officers. Subject to the rights, if any, of an officer under any contract of employment, any officer may be removed, either with or without cause, by an affirmative vote of the majority of the Board, at any regular or special meeting of the Board, or, except in case of an officer chosen by the Board, by any officer upon whom such power of removal may be conferred by the Board.

Any officer may resign at any time by giving written notice to the Corporation. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice; and, unless otherwise specified in that notice, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the Corporation under any contract to which the officer is a party.

Vacancies In Offices. A vacancy in any office because of death, resignation, removal, disqualification or any other cause shall be filled in the manner prescribed in these Bylaws for regular appointment to that office.

Compensation. The salaries of all officers of the Corporation shall be fixed from time to time by the Board and no officer shall be prevented from receiving a salary because he is also a director of the Corporation.

The Chairman of the Board. The Chairman of the Board, if such an officer be elected, shall, if present, perform such other powers and duties as may be assigned to him from time to time by the Board. If there is no President, the Chairman of the Board shall also be the Chief Executive Officer of the Corporation and shall have the powers and duties prescribed in Section 0 of this Article V.

The President. Subject to such supervisory powers, if any, as may be given by the Board to the Chairman of the Board, if there be such an officer, the President shall be the Chief Executive Officer of the Corporation, shall preside at all meetings of the stockholders and in the absence of the Chairman of the Board, or if there be none, at all meetings of the Board, shall have general and active management of the business of the Corporation and shall see that all orders and resolutions of the Board are carried into effect. He or she shall execute bonds, mortgages and other contracts requiring a seal, under the seal of the Corporation, except where required or permitted by law to be otherwise signed and executed and except where the signing and execution thereof shall be expressly delegated by the Board to some other officer or agent of the Corporation.

The Vice President. The Vice President (or in the event there be more than one, the Vice Presidents in the order designated by the directors, or in the absence of any designation, in the order of their election), shall, in the absence of the President or in the event of his disability or refusal to act, perform the duties of the President, and when so acting, shall have the powers of and subject to all the restrictions upon the President. The Vice President(s) shall perform

such other duties and have such other powers as may from time to time be prescribed for them by the Board, the President, the Chairman of the Board or these Bylaws.

The Secretary. The Secretary shall attend all meetings of the Board and the stockholders and record all votes and the proceedings of the meetings in a book to be kept for that purpose and shall perform like duties for the standing committees, when required. The Secretary shall give, or cause to be given, notice of all meetings of stockholders and special meetings of the Board, and shall perform such other duties as may from time to time be prescribed by the Board, the Chairman of the Board or the President, under whose supervision he or she shall act. The Secretary shall have custody of the seal of the Corporation, and the Secretary, or an Assistant Secretary, shall have authority to affix the same to any instrument requiring it, and, when so affixed, the seal may be attested by his or her signature or by the signature of such Assistant Secretary. The Board may give general authority to any other officer to affix the seal of the Corporation and to attest the affixing thereof, by his or her signature. The Secretary shall keep, or cause to be kept, at the principal executive office or at the office of the Corporation's transfer agent or registrar, as determined by resolution of the Board, a share register, or a duplicate share register, showing the names of all stockholders and their addresses, the number and classes of shares held by each, the number and date of certificates issued for the same and the number and date of cancellation of every certificate surrendered for cancellation.

The Assistant Secretary. The Assistant Secretary, or if there be more than one, the Assistant Secretaries in the order designated by the Board (or in the absence of any designation, in the order of their election) shall, in the absence of the Secretary or in the event of his or her inability or refusal to act,

perform the duties and exercise the powers of the Secretary and shall perform such other duties and have such other powers as may from time to time be prescribed by the Board.

The Treasurer or Chief Financial Officer. The Treasurer or Chief Financial Officer shall have the custody of the Corporate funds and securities and shall keep full and accurate accounts of receipts and disbursements in books belonging to the Corporation and shall deposit all moneys and other valuable effects in the name and to the credit of the Corporation in such depositories as may be designated by the Board. The Treasurer or Chief Financial Officer shall disburse the funds of the Corporation as may be ordered by the Board, taking proper vouchers for such disbursements, and shall render to the President and the Board, at its regular meetings, or when the Board so requires, an account of all his or her transactions as Treasurer and of the financial condition of the Corporation.

The Assistant Treasurer. The Assistant Treasurer, or if there shall be more than one, the Assistant Treasurers in the order designated by the Board (or in the absence of any designation, in the order of their election) shall, in the absence of the Treasurer or in the event of his or her inability or refusal to act, perform the duties and exercise the powers of the Treasurer and shall perform such other duties and have such other powers as may from time to time be prescribed by the Board.

INDEMNIFICATION OF DIRECTORS, OFFICERS, EMPLOYEES AND OTHER AGENTS

Indemnification of Directors and Officers. The Corporation shall, to the maximum extent and in the manner permitted by the General Corporation Law of Delaware, indemnify each of its directors and officers against expenses (including attorneys' fees), judgments, fines, settlements and other amounts actually and reasonably incurred in connection with any proceeding, arising by reason of the fact that such person is or was an agent of the Corporation. For purposes of this Section 0, a "director" or "officer" of the Corporation includes any person (i) who is or was a director or officer of the Corporation, (ii) who is or was serving at the request of the Corporation as a director or officer of another corporation, partnership, joint venture, trust or other enterprise, or (iii) who was a director or officer of a corporation which was a predecessor corporation of the Corporation or of another enterprise at the request of such predecessor corporation.

Indemnification of Others. The Corporation shall have the power, to the maximum extent and in the manner permitted by the General Corporation Law of Delaware, to indemnify each of its employees and agents (other than directors and officers) against expenses (including attorneys' fees), judgments, fines, settlements and other amounts actually and reasonably incurred in connection with any proceeding, arising by reason of the fact that such person is or was an agent of the Corporation. For purposes of this Section 0, an "employee" or "agent" of the Corporation (other than a director or officer) includes any person (i) who is or was an employee or agent of the Corporation, (ii) who is or was serving at the request of the Corporation as an employee or agent of another corporation, partnership, joint venture, trust or other enterprise, or (iii) who was an employee or agent of a corporation which was a predecessor corporation of the Corporation or of another enterprise at the request of such predecessor corporation.

Payment of Expenses In Advance. Expenses incurred in defending any action or proceeding for which indemnification is required pursuant to Section 0 or for which indemnification is permitted pursuant to Section 0 following authorization thereof by the Board of Directors shall be paid by the Corporation in advance of the final disposition of such action or proceeding upon receipt of an

undertaking by or on behalf of the indemnified party to repay such amount if it shall ultimately be determined that the indemnified party is not entitled to be indemnified as authorized in this Article VI.

Indemnity Not Exclusive. The indemnification provided by this Article VI shall not be deemed exclusive of any other rights to which those seeking indemnification may be entitled under any bylaw, agreement, vote of shareholders or disinterested directors or otherwise, both as to action in an official capacity and as to action in another capacity while holding such office, to the extent that such additional rights to indemnification are authorized in the Certificate of Incorporation.

Insurance. The Corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him or her and incurred by him or her in any such capacity, or arising out of his or her status as such, whether or not the Corporation would have the power to indemnify him or her against such liability under the provisions of the General Corporation Law of Delaware.

Conflicts. No indemnification or advance shall be made under this Article VI, except where such indemnification or advance is mandated by law or the order, judgment or decree of any court of competent jurisdiction, in any circumstance where it appears:

That it would be inconsistent with a provision of the Certificate of Incorporation, these Bylaws, a resolution of the stockholders or an agreement in effect at the time of the accrual of the alleged cause of the action asserted in the proceeding in which the expenses were incurred or other amounts were paid, which prohibits or otherwise limits indemnification; or

That it would be inconsistent with any condition expressly imposed by a court in approving a settlement.

STOCK CERTIFICATES

Certificates for Shares. The shares of the Corporation shall be represented by certificates or shall be uncertificated. Certificates shall be signed by, or in the name of the Corporation by, the Chairman of the Board, or the President or a Vice President and by the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary of the Corporation. Within a reasonable time after the issuance or transfer of uncertified stock, the Corporation shall send to the registered owner thereof a written notice containing the information required by the General Corporation Law of the State of Delaware or a statement that the Corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

Signatures On Certificates. Any or all of the signatures on a certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if he were such officer, transfer agent or registrar at the date of issue.

Transfer of Stock. Upon surrender to the Corporation or the transfer agent of the Corporation of a certificate of shares duly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer, it shall be the duty of the Corporation to issue a new certificate to the person entitled thereto, cancel the old certificate and record the transaction upon its books. Upon receipt of proper transfer instructions from the registered owner of uncertificated share, such uncertificated shares shall be canceled and issuance of new equivalent uncertificated shares or certificated shares shall be made to the person entitled thereto and the transaction shall be recorded upon the books of the Corporation.

Registered Stockholders. The Corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and to hold liable for calls and assessments a percent registered on its books as the owner of shares, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

Record Date. In order that the Corporation may determine the stockholders of record who are entitled to receive notice of, or to vote at, any meeting of stockholders or any adjournment thereof or to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or to exercise any rights in respect of any change, conversion, or exchange of stock or for the purpose of any lawful action, the Board may fix, in advance, a record date which shall not be more than sixty (60) nor less than ten (10) days prior to the date of such meeting, nor more than sixty (60) days prior to the date of any other action. A determination of stockholders of record entitled to notice or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board may fix a new record date for the adjourned meeting.

Lost, Stolen or Destroyed Certificates. The Board may direct that a new certificate or certificates be issued to replace any certificate or certificates theretofore issued by the Corporation alleged to have been lost, stolen or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen or destroyed. When authorizing the issuance of a new certificate or certificates, the Board may, in its discretion and as a condition precedent to the issuance thereof, require the owner of the lost, stolen or destroyed certificate or certificates, or his or her legal representative, to advertise the same in such manner as it shall require, and/or to give the Corporation a bond in such sum as it may direct as indemnity against any claim that may be made against the Corporation with respect to the certificate alleged to have been lost, stolen or destroyed.

NOTICES

Notice. Whenever, under the provisions of the statutes or of the Certificate of Incorporation or of these Bylaws, notice is required to be given to any director or stockholder it shall not be construed to mean personal notice, but such notice may be given in writing, by mail, addressed to such director or stockholder, at his or her address as it appears on the records of the Corporation, with postage thereon prepaid, and such notice shall be deemed to be given at the time when the same shall be deposited in the United States mail. Notice to directors may also be given by telegram or telephone. 8.2 WAIVER. Whenever any notice is required to be given under the provisions of the statutes or of the Certificate of Incorporation or of these Bylaws, a waiver thereof in writing, signed by the person or persons entitled to said notice, whether before or after the time stated therein, shall be deemed equivalent thereto.

GENERAL PROVISIONS

Dividends. Dividends upon the capital stock of the Corporation, subject to any restrictions contained in the General Corporation Laws of Delaware or the provisions of the Certificate of Incorporation, if any, may be declared by the Board at any regular or special meeting. Dividends may be paid in cash, in property or in shares of the capital stock, subject to the provisions of the Certificate of Incorporation.

Dividend Reserve. Before payment of any dividend, there may be set aside out of any funds of the Corporation available for dividends such sum or sums as the directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the Corporation, or for such other purpose as the directors shall think conducive to the interest of the Corporation, and the directors may modify or abolish any such reserve in the manner in which it was created.

Annual Statement. The Board shall present at each annual meeting, and at any special meeting of the stockholders when called for by vote of the stockholders, a full and clear statement of the business and condition of the Corporation.

Checks. All checks or demands for money and notes of the Corporation shall be signed by such officer or officers or such other person or persons as the Board may from time to time designate.

Corporate Seal. The Board may provide a suitable seal, containing the name of the Corporation, which seal shall be in charge of the Secretary. If and when so directed by the Board or a committee thereof, duplicates of the seal may be kept and used by the Treasurer or by an Assistant Secretary or Assistant Treasurer.

Execution of Corporate Contracts and Instruments. The Board, except as otherwise provided in these Bylaws, may authorize any officer or officers, or agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the Corporation; such authority may be general or confined to specific instances. Unless so authorized or ratified by the Board or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the Corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

AMENDMENTS

10.1 ***Amendments***

In addition to the right of the stockholders of the Corporation to make, alter, amend, change, add to or repeal the Bylaws of the Corporation, the Board of Directors shall have the power (without the assent or vote of the stockholders) to make, alter, amend, change, add to or repeal the Bylaws of the Corporation.

EXHIBIT 15.1

LETTER RE UNAUDITED INTERIM FINANCIAL INFORMATION

August 14, 2003

MacroPore Biosurgery, Inc
6740 Top Gun Street
San Diego, CA 92121

Re: Registration Statement No. 333-82074

With respect to the subject registration statement, we acknowledge our awareness of the use therein of our report dated August 11, 2003 related to our review of interim financial information.

Pursuant to Rule 436 under the Securities Act of 1933 (the Act), such report is not considered part of a registration statement prepared or certified by an accountant, or a report prepared or certified by an accountant within the meaning of Sections 7 and 11 of the Act.

/s/ KPMG LLP

San Diego, California

EXHIBIT 31.1

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

I, Christopher J. Calhoun, certify that:

1. I have reviewed this quarterly report on Form 10-Q of MacroPore Biosurgery, Inc.;

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 quarterly 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) 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) 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

(c) 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 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: August 14, 2003
/s/ Christopher J. Calhoun
Christopher J. Calhoun,
Chief Executive Officer, President

EXHIBIT 31.2

Certification of Principal Financial Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Ari E. Bizimis, certify that:

1. I have reviewed this quarterly report on Form 10-Q of MacroPore Biosurgery, Inc.;

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 quarterly 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) 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) 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

(c) 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 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: August 14, 2003
/s/ Ari E. Bizimis

Ari E. Bizimis,
Chief Financial Officer

EXHIBIT 32.1

CERTIFICATIONS PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES – OXLEY ACT OF 2002

CHRISTOPHER J. CALHOUN and ARI BIZIMIS hereby certify that:

1. They are the Chief Executive Officer and Chief Financial Officer, respectively, of MacroPore Biosurgery, Inc.

2. The Form 10-Q report of MacroPore Biosurgery, Inc. that this certification accompanies fully complies with the requirements of section 13(a) of the Securities Exchange Act of 1934.

3. The information contained in the Form 10-Q report of MacroPore Biosurgery, Inc. that this certification accompanies fairly presents, in all material respects, the financial condition and results of operations of MacroPore Biosurgery, Inc.

Dated: August 14, 2003

By: /s/ Christopher J. Calhoun
Christopher J. Calhoun
Chief Executive Officer, President

By: /s/ Ari Bizimis
Ari Bizimis
Chief Financial Officer