MICROFLUIDICS INTERNATIONAL CORP
Form 10-Q
May 15, 2009

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

Form 10-Q

(Mark One)

x QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended March 31, 2009

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: 0-11625

Microfluidics International Corporation
(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	04-2793022 (I.R.S. Employer Identification No.)
30 Ossipee Road, Newton, Massachusetts (Address of principal executive offices)	02464 (Zip Code)

(617) 969-5452
(Registrant’s telephone number, including area code)

(Former name, former address and former fiscal year, if changed since last report)

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 (the “Act”) during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.
Yes x No q

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 if Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes q No q

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer o	Accelerated filer o	Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company x

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

As of May 13, 2009, 10,371,782 shares of the registrant's Common Stock, par value $.01 per share, were outstanding.

MICROFLUIDICS INTERNATIONAL CORPORATION
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PART I. FINANCIAL INFORMATION
ITEM 1. FINANCIAL STATEMENTS

MICROFLUIDICS INTERNATIONAL CORPORATION
Condensed Consolidated Balance Sheets
(Unaudited - in thousands, except share and per share amounts)

	March 31, 2009		December 31, 2008	
ASSETS				
Current assets:				
Cash and cash equivalents	$	850	$	1,895
Accounts receivable, net of allowance of $44 both at March 31, 2009 and December 31, 2008, respectively		2,536		2,181
Inventories		2,737		2,723
Prepaid and other current assets		220		320
Total current assets		6,343		7,119
Property and equipment, net		1,109		1,121
Other non-current assets		481		480
Total assets	$	7,933	$	8,720
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities:				
Accounts payable	$	1,084	$	986
Accrued expenses		1,151		1,233
Customer advances		280		436
Total current liabilities		2,515		2,655
Long-term liabilities:				
Convertible debt		4,638		4,625
Total liabilities		7,153		7,280
Stockholders' equity:				
Common stock; $.01 par value; 20,000,000 shares authorized; 10,607,228 and 10,592,228 shares issued; 10,371,782 and 10,356,782 shares outstanding as of March 31, 2009 and December 31, 2008, respectively		106		106
Additional paid-in capital		18,072		18,042
Accumulated deficit		(16,729)		(16,039)
		(669)		(669)

Treasury stock, 235,446 shares, at cost, as of March 31, 2009 and December 31, 2008				
Total stockholders' equity		780		1,440
Total liabilities and stockholders' equity	$	7,933	$	8,720

See notes to unaudited condensed consolidated financial statements

MICROFLUIDICS INTERNATIONAL CORPORATION
Condensed Consolidated Statements of Operations
(Unaudited - in thousands, except share and per share amounts)

	For The Three Months Ended March 31,			
		2009		2008
Revenues	$	3,559	$	3,522
Cost of sales		1,653		1,609
Gross profit		1,906		1,913
Operating expenses:				
Research and development		452		491
Selling		1,216		932
General and administrative		804		941
Total operating expenses		2,472		2,364
Loss from operations		(566)		(451)
Interest expense		(126)		(5)
Interest income		2		11
Net loss	$	(690)	$	(445)
Net loss per common share:				
Basic	$	(0.07)	$	(0.04)
Diluted	$	(0.07)	$	(0.04)
Weighted average number of common and common equivalent shares outstanding:				
Basic		10,370,628		10,260,482
Diluted		10,370,628		10,260,482

See notes to unaudited condensed consolidated financial statements

MICROFLUIDICS INTERNATIONAL CORPORATION
Condensed Consolidated Statements of Cash Flows
(Unaudited - in thousands)

	For The Three Months Ended March 31,			
		2009		2008
Cash flows from operating activities:				
Net loss	$	(690)	$	(445)
Adjustments to reconcile net loss to net cash flows:				
Depreciation and amortization		96		41
Provision for obsolete inventory		-		(18)
Share-based compensation		26		54
Changes in assets and liabilities:				
Accounts receivable		(355)		369
Inventories		(14)		(366)
Prepaid expenses and other current assets		95		(221)
Accounts payable		98		719
Accrued expenses		(82)		130
Customer advances		(156)		289
Net cash flows (used in) provided by operating activities		(982)		552
Cash flows from investing activities:				
Purchase of property, plant and equipment		(67)		(296)
Net cash flows used in investing activities		(67)		(296)
Cash flows from financing activities:				
Borrowings on revolving credit line		-		65
Principal repayments on long-term debt and obligations under capital leases		-		(65)
Net proceeds from issuance of common stock		4		11
Net cash flows (used in) provided by financing activities		4		11
Net change in cash and cash equivalents		(1,045)		267

Cash and cash equivalents at beginning of period		1,895		756
Cash and cash equivalents at end of period	$	850	$	1,023

See notes to unaudited condensed consolidated financial statements

MICROFLUIDICS INTERNATIONAL CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

1. Description of Business

Company Overview

References herein to “we”, “us”,“our”, or “the Company” are to Microfluidics International Corporation.

We, through our wholly-owned subsidiary, Microfluidics Corporation (“Microfluidics”), operate in one segment, producing and marketing a broad line of proprietary high-shear fluid processing systems used primarily in the pharmaceutical, biotechnology, digital ink, microelectronics, food, chemical and personal care industries.

The condensed consolidated financial statements include the accounts of our Company and our wholly-owned subsidiary, Microfluidics. All intercompany balances and transactions have been eliminated.

Our corporate headquarters and manufacturing operations are located in Newton, Massachusetts.

Certain accounts in the condensed consolidated financial statements and related notes have been reclassified to conform to current period presentation.

2. Interim Financial Statements

The condensed consolidated financial information for the three months ended March 31, 2009 is unaudited but includes all adjustments (consisting only of normal recurring adjustments) that the Company considers necessary for a fair presentation of the financial position at such date and of the operating results and cash flows for the period. The results of operations for the three months ended March 31, 2009 are not necessarily indicative of results that may be expected for the entire year. The information contained in this Form 10-Q should be read in conjunction with the Company’s audited financial statements, included in its Annual Report on Form 10-K as of and for the year ended December 31, 2008 filed with the Securities and Exchange Commission (“SEC”) on March 30, 2009.

The condensed consolidated balance sheet as of March 31, 2009 has been derived from our audited consolidated financial statements at that date but does not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements.

3. Significant Accounting Policies

The significant accounting policies followed by the Company and its subsidiary in preparing its unaudited condensed consolidated financial statements are set forth in Note 1 to the consolidated financial statements included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2008, filed with the SEC.

4. Revenue Recognition

We recognize revenue in accordance with Staff Accounting Bulletin (“SAB”) No. 104, “Revenue Recognition in Financial Statements”. Revenue is recognized when all of the following criteria are met: i) persuasive evidence of an arrangement exists, ii) delivery has occurred, iii) the price to the customer is fixed and determinable, and iv) collectibility is reasonably assured. In revenue transactions where support services are requested, revenue is recognized on shipment since the support service obligation is not essential to the functionality of the delivered products. Revenue transactions involving non-essential support services obligations are those which can generally be

completed in a short period of time at insignificant cost and the skills required to complete these support services are not unique to us and in many cases can be provided by third parties or the customers. The customer's purchase obligations are not contingent upon performance of support services, if any, by us. Proceeds received in advance of product shipment are recorded as customer advances in the consolidated balance sheets. Returns and customer credits have been infrequent and are recorded as a reduction to sales. Rights of returns are not included in sales arrangements. Discounts from list prices are recorded as a reduction to sales. On occasion, the Company provides machines for rent by customers. Income for the rental of equipment is recognized on a straight-line basis over the rental term. Rental income and product sales are classified in revenues in the consolidated statements of operations.

5. Recent Accounting Pronouncements

In May 2008, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards ("SFAS") No. 162, "The Hierarchy of Generally Accepted Accounting Principles". This new standard identifies the sources of accounting principles and framework for selecting the principles to be used in the preparation of financial statements of nongovernmental entities that are presented in conformity with generally accepted accounting principles ("GAAP") in the United States ("the GAAP hierarchy").

MICROFLUIDICS INTERNATIONAL CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

The FASB believes the GAAP hierarchy should be directed to entities because it is the entity (not its auditor) that is responsible for selecting accounting principles for financial statements that are presented in conformity with GAAP. Accordingly, the FASB concluded that the GAAP hierarchy should reside in the accounting literature established by the FASB and is issuing this statement to achieve that result. The new standard is effective 60 days following the Securities and Exchange Commission's approval of the Public Company Accounting Oversight Board amendments to AU Section 411, "The Meaning of Present Fairly in Conformity With Generally Accepted Accounting Principles", and it is not expected that this Statement will result in a change in our current practice.

In September 2006, the FASB issued Statement of Financial Accounting Standards ("SFAS") No. 157, "Fair Value Measurements." This new standard provides guidance for using fair value to measure assets and liabilities. The FASB believes SFAS No. 157 also responds to investors' requests for expanded information about the extent to which companies measure assets and liabilities at fair value, the information used to measure fair value, and the effect of fair value measurements on earnings. SFAS No. 157 applies whenever other standards require (or permit) assets or liabilities to be measured at fair value but does not expand the use of fair value in any new circumstances. SFAS No. 157 is effective for fiscal years beginning after November 15, 2007

In February 2007, the FASB issued SFAS No. 159, "The Fair Value Option for Financial Assets and Financial Liabilities," which provides companies with an option to report selected financial assets and liabilities at fair value. The objective of SFAS No. 159 is to reduce both complexity in accounting for financial instruments and the volatility in earnings caused by measuring related assets and liabilities differently. SFAS No. 159 establishes presentation and disclosure requirements designed to facilitate comparisons between companies that choose different measurement attributes for similar types of assets and liabilities and to more easily understand the effect of the company's choice to use fair value on its earnings. SFAS No. 159 also requires entities to display the fair value of the selected assets and liabilities on the face of the balance sheet. SFAS No. 159 does not eliminate disclosure requirements of other accounting standards, including fair value measurement disclosures in SFAS No. 157. This Statement is effective as of the beginning of an entity's first fiscal year beginning after November 15, 2007.

On January 1, 2008, we adopted both SFAS No. 157 and SFAS No. 159, neither of which had any material impact on our results of operations or financial position.

In December 2007, the FASB issued SFAS No. 160, "Noncontrolling Interests in Consolidated Financial Statements" ("SFAS No. 160"). SFAS No. 160 clarifies that a non-controlling or minority interest in a subsidiary is considered an ownership interest and accordingly, requires all entities to report such interests in subsidiaries as equity in the consolidated financial statements. SFAS No. 160 is effective for fiscal years beginning after December 15, 2008. On January 1, 2009 we adopted SFAS No. 160 which did not have a material effect on operations.

6. Stock Based Compensation

The Company accounts for stock-based compensation in accordance with SFAS No. 123R, "Share-Based Payment" which was adopted January 1, 2006, using the modified prospective transition method.

For the three month periods ended March 31, 2009 and 2008, the Company recognized stock-based employee compensation expense of $26,000 and $54,000, respectively, which is included in General and Administrative expense of the unaudited condensed consolidated statements of operations. During the first quarter of 2009 the Company reversed previously recorded stock-based employee compensation charges totaling approximately $32,000 related to terminated employees. The Company did not capitalize any stock-based compensation. The Company has established a valuation allowance for net deferred tax assets; accordingly, no significant tax benefit on the stock-based

compensation was recorded during the three month periods ended March 31, 2009 and 2008. The fair value of each option granted during the three months ended March 31, 2009 and 2008 is estimated on the date of grant using the Black-Scholes option pricing model with the following weighted average assumptions:

	Three Months Ended March 31,	
	2009	2008
Dividend yield	None	None
Expected volatility	111.00	105.00
Risk-free interest rate	2.00	2.64
Expected life	5.0 years	5.0 years

MICROFLUIDICS INTERNATIONAL CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

The weighted average fair value of stock options granted during the three months ended March 31, 2009 and 2008 was $0.54 and $1.10 per share, respectively. We estimate forfeitures related to options grants at an annual rate of 11% and 9% for 2009 and 2008, respectively.

Total unrecognized stock-based compensation expense related to unvested stock options, expected to be recognized over a weighted average period of 5 years, amounted to approximately $823,000 at March 31, 2009.

The Company has three (3) shareholder approved stock option plans as follows: (i) the 1988 Stock Plan, which authorized the grant of stock rights for up to 3,500,000 shares of common stock (the “1988 Plan”); (ii) the 1989 Non-Employee Director Stock Option Plan (the “1989 Plan”), which authorizes the grant of nonqualified stock options for up to 500,000 shares of common stock; and (iii) the 2006 Stock Plan (the “2006 Plan”) which authorizes the grant of stock rights for up to 4,000,000 shares of common stock, increased by the number of shares of common stock underlying unexercised options issued under either the 1988 Plan or the 1989 Plan (collectively referred to herein as the “Prior Plans”) that expired after June 20, 2006, and decreased by the number of shares of common stock issued and issuable pursuant to options outstanding under the Prior Plans. The 2006 Plan was approved by the Company’s shareholders at the Annual Meeting of Shareholders held on June 20, 2006. Upon adoption of the 2006 Plan by the Company’s shareholders, we ceased granting new options under the Prior Plans. The Prior Plans permitted, and the 2006 Plan permits, the granting of stock awards to employees, officers, and non-employee members of the Board of Directors. Options granted under the Prior Plans and the 2006 Plan permit vesting over a 3-to-5 year period and expire 5-to-10 years from the date of grant. At March 31, 2009, approximately 636,000 shares were available for future grants under the 2006 Plan and no shares were available for future grants under the Prior Plans.

During the three months ended March 31, 2009 and 2008, the Company issued 385,000 and 226,422 respectively, stock options pursuant to the 2006 Plan, at exercise prices equal to or greater than the fair market value of the Company’s common stock on the date of grant. During the three months ended March 31, 2009 and 2008, approximately 200,000 shares and 0 shares, respectively, were forfeited and approximately 38,000 and 41,000 shares were vested, respectively under the 2006 Plan.

Information regarding option activity for the three months ended March 31, 2009 under the Plan is summarized below:

	Options Outstanding	Weighted Average Exercise Price per Share	Weighted Average Remaining Contractual Term in Years
Options outstanding as of January 1, 2009	1,284,682	$ 1.37	4.55
Granted	385,000	0.54	10.00
Cancelled	(200,372)	1.06	-
Exercised	-	-	-
Options outstanding as of March 31, 2009	1,469,310	$ 1.17	8.40
Options exercisable as of March 31, 2009	663,443	$ 1.47	6.52

On November 17, 2004, we entered into a general financial and advisory services agreement with Maxim Group LLC, pursuant to which Maxim Group LLC was granted, on April, 1, 2005, a three-year warrant to purchase 100,000 shares of our common stock at an exercise price of $3.20 per share. These warrants were issued pursuant to the exemption to the registration requirements of the Securities Act of 1933, as amended, available under Section 4(2) of that Act. Maxim Group LLC was an "accredited investor" pursuant to the rules of the Securities and Exchange Commission. We filed a registration statement on Form SB-2, which was declared effective on June 5, 2006, for purposes of registering the shares of common stock underlying the warrants. Maxim Group LLC has waived its rights to receive, based upon the date that the registration statement on Form SB-2 was declared effective, an additional warrant to purchase shares of our common stock. The warrants were exercisable in whole or in part at any time on or prior to April 1, 2008. In addition, the warrants provide for certain adjustments to the exercise price upon the issuance by us of certain securities at a price below $3.20. On April 1, 2008, Maxim Group LLC failed to exercise any of the warrants; consequently these warrants have expired.

MICROFLUIDICS INTERNATIONAL CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

7. Inventories

Inventories consist of the following:

(in thousands)	March 31, 2009	December 31, 2008
Raw materials	$ 2,323	$ 2,485
Work in progress	206	63
Finished goods	404	371
	2,933	2,919
Less: provision for excess inventory	(196)	(196)
Total inventories	$ 2,737	$ 2,723

8. Property and Equipment

Property, plant and equipment consist of the following:

(in thousands)	March 31, 2009	December 31, 2008
Furniture, fixtures and office equipment	$ 902	$ 893
Machinery, equipment and tooling	530	505
Leasehold improvements	902	869
	2,334	2,267
Less: accumulated depreciation and amortization	(1,225)	(1,146)
Property and Equipment, net	$ 1,109	$ 1,121

For the three months ended March 31, 2009 and 2008, depreciation expense was approximately $79,000 and $39,000, respectively.

9. Accrued Expenses

Accrued expenses consist of the following:

(in thousands)	March 31, 2009	December 31, 2008
Accrued expenses	$ 392	$ 549
Accrued wages and vacation pay	330	360
Accrued commissions	370	253
Accrued warranty	59	71
Total accrued expenses	$ 1,151	$ 1,233

10. Earnings (loss) Per Share

Basic net loss per common share was determined by dividing net loss applicable to common stockholders by the weighted average number of common shares outstanding during the period. Diluted net loss per share (EPS) does not reflect the potential dilution that could occur if securities or other contracts to issue common stock were exercised or converted into common stock or resulted in the issuance of common stock, as the effect would be anti-dilutive.

MICROFLUIDICS INTERNATIONAL CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

	Three Months Ended March 31,	
	2009	2008
Shares for computation of basic net loss per share	10,370,628	10,260,482
Effect of dilutive stock options and warrants	-	-
Shares for computation of diluted net loss per share	10,370,628	10,260,482

11. Industry Segment, Geographic and Enterprise-Wide Information

SFAS No. 131, “Disclosures about Segments of an Enterprise and Related Information,” requires companies to report selected information about operating segments, as well as enterprise-wide disclosures about products, services, geographic areas and major customers. Operating segments are determined based on the way management organizes its business for making operating decisions and assessing performance. The Company’s chief decision-maker, as defined under SFAS No. 131, is the chief executive officer. The Company has determined that it conducts its operations in one business segment: the development, manufacture, marketing and sale of process and formulation equipment. The Company’s sales are primarily to companies with processing needs in the chemical, pharmaceutical, food, cosmetic, and biotechnology industries. The Company has less than 1% of total assets in foreign countries. As a result, the financial information disclosed herein represents all of the material financial information related to the Company’s principal operating segment.

Approximate sales to customers by geographic markets, are as follows:

	Three Months Ended March 31,	
(in thousands)	2009	2008
North America	$ 2,439	$ 1,492
Asia	396	665
Europe	724	1,365
	$ 3,559	$ 3,522

The users of the Company’s systems are in various industries, including the chemical, pharmaceuticals, food, cosmetic and biotechnology industries. For the three months ended March 31, 2009 no customer accounted for greater than 10% of revenue. For the three months ended March 31, 2008 a single customer accounted for 22.7% of the Company’s revenues. One customer accounted for 9.0% of the trade accounts receivable as of March 31, 2009. Two customers accounted for 15.4% and 7.9%, respectively, of the trade accounts receivable as of March 31, 2008. A reduction or delay in orders from any of the Company’s significant customers could have a material adverse effect on the Company’s results of operations.

The Company sells its products in various countries. The Company’s sales in North America, including the United States, Canada, and Mexico, accounted for approximately 68.5% of the Company’s revenues in the three months ended March 31, 2009 and approximately 42.4% of the Company’s revenues in three months ended March 31, 2008. Sales to the rest of the world accounted for approximately 31.5% of the Company’s revenues in the three months ended March

31, 2009 and approximately 57.6% of the Company's revenues in the three months ended March 31, 2008. Sales through the Company's exclusive distributor in Japan accounted for approximately 1.0% of the Company's revenues in the three months ended March 31, 2009 and 7.1% of the Company's revenues in the three months ended March 31, 2008. Sales through the Company's representative in China accounted for approximately 3.0% of the Company's revenues in the three months ended March 31, 2009 and 9.7% of the Company's revenues in the three months ended March 31, 2008.

12. Stockholders' Equity

During the three months ended March 31, 2009 and March 31, 2008 the Company issued no shares of common stock as a result of the exercise of options by employees and directors. During the three months ended March 31, 2009 and 2008, the Company issued 15,000 and 11,249 shares, respectively, of common stock as a result of the purchase of shares under the Employee Stock Purchase Plan, generating cash proceeds of approximately $4,000 and $11,000, respectively.

MICROFLUIDICS INTERNATIONAL CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

13. Credit Facility

On June 30, 2008, the "Company" and its wholly owned subsidiary, Microfluidics Corporation, entered into a Loan and Security Agreement (the "Domestic Loan Agreement") with Silicon Valley Bank ("SVB"), which it used to payoff its previous loan agreement with T.D. Banknorth, formerly known as Banknorth, N.A. ("Banknorth"), in the amount of $1,000,000 in principal, and approximately $12,000 in interest and legal fees.

On July 2, 2008, the Company and SVB entered into an Export-Import Bank Loan and Security Agreement (the "Export-Import Loan Agreement") and together with the Domestic Loan Agreement, created the "SVB Loan Agreement". The SVB Loan Agreement provided the Borrower with a revolving line of credit ("Revolving Line of Credit"). The Revolving Line of Credit had a two-year term and allowed for a maximum outstanding balance of $2,500,000. The principal amount outstanding under the SVB Loan Agreement accrued interest at a per annum rate equal to: (a) the greater of (i) five percent (5.00%) or (ii) the Lender's most recently announced "prime rate," even if it is not the Lender's lowest rate, plus (b) one percent (1.00%). SVB's prime rate as of July 7, 2008 was 5.00%. Interest was payable on the last business day of each month. The Company was also required to maintain two financial covenants, and additional affirmative covenants. The Revolving Line of Credit was repaid in connection with the issuance of the Debenture, as described in Note 14.

14. Long-Term Debt

Long-term debt as of the following dates consisted of:

(in thousands)		March 31, 2009		December 31, 2008
Convertible debt, (net of discount of $362 in 2009 and $375 in 2008)	$	4,638	$	4,625
Less: current portion		-		-
Long-term debt, net of current portion	$	4,638	$	4,625

On November 14, 2008, the Company issued a convertible debenture (the "Debenture") with a principal face value of $5,000,000 and a warrant (the "Warrant") to Global Strategic Partners, LLC, a Delaware limited liability company ("GSP") pursuant to a Debenture and Warrant Purchase Agreement (the "Agreement"). The principal of the Debenture will mature and be payable on November 14, 2015. Interest on the Debenture is payable quarterly. Upon occurrence of certain events of default, as defined in the Debenture, all amounts will be immediately due and payable. The Debenture is secured by all assets, property rights and interests of the Company. It shall be senior to all other indebtedness of the Company, except for certain bank guarantees as defined in the Debenture. In connection with the issuance of the Debenture, the Company repaid the entire amount due under Revolving Line of Credit. The payoff amount was approximately $1,050,000.

At the election of GSP, the Debenture is convertible in whole or part, into the Company's common stock, par value $0.01 per share, on any of the maturity date, the date that any interest payment is due, or the date on which a change of control occurs into a number of shares of our common stock equal to the quotient of (i) the outstanding principal amount of the Debenture, divided by (ii) $1.25. Debenture to GSP, which will be convertible.

In May 2009 the Company and GSP agreed to defer the interest payments due and payable on each of July 1, 2009, October 1, 2009 and January 4, 2010. The deferred payments will accrue interest at nine percent per annum and will be payable in eight equal quarterly installments on the first day of such quarter beginning on April 1, 2010.

15. Income Taxes

The Company provides for income taxes at the end of each interim period based on the estimated effective tax rate for the full fiscal year. Cumulative adjustments to the tax provision are recorded in the interim period in which a change in the estimated annual effective rate is determined. The effective tax rate calculation includes determining both the current and deferred income tax expense as well as accounting for the differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis. The future tax consequences attributable to these differences result in deferred tax assets and liabilities, which are included on our consolidated balance sheets. We must assess the recoverability of the deferred tax assets by considering whether it is “more likely than not” that some portion or all of the deferred tax assets will be realized. To the extent we believe that recovery does not meet this “more likely than not” standard as required in SFAS No. 109, “Accounting for Income Taxes”, we must establish a valuation allowance. Changes in the valuation allowance are reflected in determining the effective tax rate for the year.

For the three months ended March 31, 2009, the Company recognized no tax provision or benefit due to the loss from operations, nor adjusted the Company’s full valuation allowance against its deferred tax assets.

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

Future Operating Results

This report may contain forward-looking statements that are subject to certain risks and uncertainties including, but not limited to, statements relating to our plan to achieve, maintain, and/or increase revenue growth, and/or operating profitability, and to achieve, maintain, and/or increase net operating profitability. Forward-looking statements may include the words "may," "estimate," "intend," "continue," "believe," "expect," "anticipate," and other similar words. Such statements are based on our current expectations and are subject to a number of factors and uncertainties that could cause actual results achieved by us to differ materially from those described in the forward-looking statements. Such risks and uncertainties that could cause actual results or business conditions to differ materially from those projected or suggested in such forward-looking statements include, but not limited to, the following risks and uncertainties: (i) whether the performance advantages of our Microfluidizer materials processing equipment will be realized commercially or that a commercial market for the equipment will continue to develop, (ii) whether the timing of orders will significantly affect quarter to quarter revenues and resulting net income results for a particular quarter, which may cause increased volatility in our stock price, (iii) whether we will have access to sufficient working capital through continued and improving cash flow from sales and ongoing borrowing availability, the latter being subject to our ability to maintain compliance with the covenants and terms of our loan agreement in place at that time, if any, (iv) whether our technology will be adopted by customers as a means of producing MRT, as defined below, innovative materials in large quantities, (v) whether we are able to deploy prototype MRT placements and then manufacture and introduce commercial production MRT equipment, (vi) whether we will achieve a greater proportion of our sales in the future through the sale of advanced processor production systems, and (vii) as well as those risks set forth in Part II Item 1A, "Risk Factors." We assume no responsibility to update any forward-looking statements as a result of new information, future events, or otherwise.

Overview

We have, for over 20 years, specialized in manufacturing and marketing a broad line of high shear fluid processing systems used in numerous applications in the chemical, pharmaceutical, biotech, food and cosmetics industries.

Our line of high shear fluid processor equipment, marketed under our Microfluidizer trademark and trade name, process premixed formulations to produce small uniform structures, usually of the submicron and nanoscale size (commonly defined as particles having dimensions less than 100 nanometers) including nanostructures, microemulsions and nanosuspensions. The equipment produces commercial quantities of such materials important to producers of pharmaceuticals, coatings and other products. Further, we guarantee scale up of formulations and results on our processor equipment from 10 milliliters per minute on our laboratory and bench top models to more than 15 gallons per minute on our pilot and production models.

The technology embodied within our Microfluidizer high shear fluid processor is used for formulation of products that are normally very difficult to mix and stabilize. Microfluidizer processors through process intensification allow manufacturers in the chemical, pharmaceutical, cosmetic, and food processing industries to produce higher quality products with better characteristics on a more consistent basis than with other blending, mixing or homogenizing techniques. Additionally, the equipment is used for cell disruption to harvest the cultivated contents of bacterial, yeast, mammalian and/or plant cells and for liposomal encapsulation of materials for the cosmetics and biotech/biopharma industries.

We have begun to take steps toward commercializing our proprietary equipment, processes and technology for the continuous production of precipitated submicron or nanoscale particles by interaction of discrete streams of reacting materials, through a novel adaptation of our Microfluidizer processor equipment that permits the mixing of, and reactions between, streams of different solutions at high pressures. We refer to this technology as a Multiple Stream

High Pressure Mixer/Reactor (MMR). In August 1997, we filed a patent application for the device and its processes with the United States Patent and Trademark Office (USPTO), and filed a Patent Cooperation Treaty (PCT) application on May 5, 1998. In July and November 2000, we were issued by the USPTO notices of allowances of utility patent claims regarding the MMR and the use thereof.

On September 18, 2002, the European Patent Office advised us it would grant our MMR patent substantially as applied for, including our device and process claims. We have gained national entry of the patent in France, Germany, Italy, The Netherlands, and the United Kingdom. We are still pursuing the allowance of the patent in Canada. Our management believes that future commercialization and growth of nanotechnology may be, in large part, enabled by the manufacturing capability of our materials processor and MMR equipment.

We intend to pursue patent protection in the United States and select foreign jurisdictions with respect to proprietary aspects of our Microfluidics Reaction Technology (MRT). U.S. Patent filing commenced in March 2008 and Patent Convention Treaty (PCT) filing will commence in March 2009 with national patents to follow in approximately 12-18 months.

Critical Accounting Policies

Our significant accounting policies are summarized in Note 1 to our consolidated financial statements included in Item 8 of our Annual Report on Form 10-K for the period ended December 31, 2008 as filed with the SEC. However, certain of our accounting policies require the application of significant judgment by our management, and such judgments are reflected in the amounts reported in our consolidated financial statements. In applying these policies, our management uses their judgment to determine the appropriate assumptions to be used in the determination of estimates. Those estimates are based on our historical experience, terms of existing contracts, our observance of market trends, information provided by our strategic partners and information available from other outside sources, as appropriate. Actual results may differ significantly from the estimates contained in our consolidated financial statements. Our critical accounting policies are as follows:

Revenue Recognition. We recognize revenue in accordance with Staff Accounting Bulletin ("SAB" No. 104, "Revenue Recognition in Financial Statements"). Revenue is recognized when all of the following criteria are met: i) persuasive evidence of an arrangement exists, ii) delivery has occurred, iii) the price to the customer is fixed and determinable, and iv) collectibility is reasonably assured. In revenue transactions where support services are requested, revenue is recognized on shipment since the support service obligation is not essential to the functionality of the delivered products. Revenue transactions involving non-essential support services obligations are those which can generally be completed in a short period of time at insignificant cost and the skills required to complete these support services are not unique to us and in many cases can be provided by third parties or the customers. The customer's purchase obligations are not contingent upon performance of support services, if any, by us. Proceeds received in advance of product shipment are recorded as customer advances in the consolidated balance sheets. Returns and customer credits are infrequent and recorded as a reduction to sales. Rights of returns are not included in sales arrangements. Discounts from list prices are recorded as a reduction to sales. On occasion, we provide machines for rent by customers. Income for the rental of equipment is recognized on a straight-line basis over the rental term. Rental income and product sales are classified in revenues in the consolidated statement of operations.

Accounts Receivable Valuation. We perform various analyses to evaluate accounts receivable balances and record an allowance for bad debts based on the estimated collectability of the accounts such that the amounts reflect estimated net realizable value. If actual uncollectible amounts significantly exceed the estimated allowance, our operating results would be significantly and adversely affected.

Inventory Valuation. We value our inventory at the lower of our actual cost or the current estimated market value. We regularly review inventory quantities on hand and inventory commitments with suppliers and record a provision for excess and obsolete inventory based primarily on our historical usage for the prior twenty-four month period. Although we make every effort to ensure the accuracy of our forecasts of future product demand, any significant unanticipated change in demand or technological developments could have a significant impact on the value of our inventory and our reported operating results.

Product Warranties. Our products are generally sold with a twelve month warranty provision that requires us to remedy deficiencies in quality or performance of our products at no cost to our customers only after it has been determined that the cause of the deficiency is not due to the actions of the machine operator or product used in the machine. We have established a policy for replacing parts that wear out or break prematurely. The policy called for replacing the parts or repairing a machine within one year of the sale. Commencing in May of 2006, we amended our warranty by limiting to a period of 90 days our warranty coverage on certain critical wear items. We are now selling more advanced processor production systems than past years that may require more costly parts.

Results of Operations

Three Months Ended March 31, 2009 vs. March 31, 2008

Revenues

Total revenues for the three months ended March 31, 2009 were approximately $3,559,000, as compared to revenues of $3,522,000 for the comparable prior year period, an increase of approximately $37,000, or 1.1%.

North American sales for the three months ended March 31, 2009 increased to approximately $2,439,000, or 63.5%, as compared to sales of approximately $1,492,000 for the three months ended March 31, 2008. The increase in North American sales was principally due to an increase in the sale of machines of approximately $1,330,000 partially offset by a decrease in spare part sales of approximately $457,000. Foreign sales were approximately $1,120,000 for the three months ended March 31, 2009, compared to $2,030,000 for the three months ended March 31, 2008, a decrease of $910,000, or 44.8%. The decrease in foreign sales was principally due to pricing pressure from our Asia/Pacific

markets and the global economic crisis resulting in a decrease in foreign machine sales of approximately $713,000 and a decrease in foreign spare parts sales of approximately $197,000.

Cost of Goods Sold

Cost of goods sold for the three months ended March 31, 2009 was approximately $1,653,000, or 46.4% of revenue, compared to $1,609,000, or 45.7% of revenue, for the comparable prior year period. The increase in cost of goods sold in absolute dollars for the three months ended March 31, 2009, reflects a slight increase in machine component costs. The Company's major product lines have different profit margins, as well as multiple profit margins within each product line.

Research and Development Expenses

Research and development expenses for the three months ended March 31, 2009 were approximately $452,000, compared to $491,000 for the comparable prior year period, a decrease of approximately $39,000, or 7.9%. The decrease in research and development expenses was primarily due to lower fees from outside consultants of approximately $35,000 and lower research & development expenses of approximately $24,000 offset by slightly higher occupancy costs.

Selling Expenses

Selling expenses for the three months ended March 31, 2009 were approximately $1,216,000, compared to $932,000 for the comparable prior year period, an increase of $284,000, or 30.5%. The increase is primarily attributable to planned increases in headcount and related personnel fees of approximately $208,000, an increase of commission expenses of approximately $79,000, based on product mix, travel related selling expenses of approximately $46,000, partially offset by a decrease in consulting and professional fees of approximately $49,000.

General and Administrative Expenses

General and administrative expenses for the three months ended March 31, 2009, were approximately $804,000, compared to $941,000 for the comparable prior year period, a decrease of $137,000, or 14.6%. The decrease in general and administrative expenses is principally due to a decrease in overall headcount and related expenses of approximately $106,000, a decrease in fees paid to outside consultants of approximately $90,000, and a decrease in recruiting expenses of approximately $45,000. These decreases were partially offset by severance related charges for terminated employees of approximately $97,000 and an increase in facility and other related charges of approximately $38,000.

Interest Income and Expense

Interest expense for the three months ended March 31, 2009 was approximately $126,000 compared to $5,000 for the comparable prior year period, an increase of approximately $121,000. The increase is due to interest payments on the $5 million of convertible debt that we issued in November 2008 to an accredited investor. The convertible debt bears a fixed rate of interest of 9%.

Interest income for the three months ended March 31, 2009 was approximately $2,000 compared to $11,000 for the comparable prior year period, a decrease of $9,000 or 81.8%. The decrease is due to a decrease in cash available for investments.

Income Tax Provision

For the three months ended March 31, 2009, the Company recognized no tax provision or benefit on the loss from operations, and the Company maintains a full valuation allowance against its net deferred tax assets.

Liquidity and Capital Resources

Liquidity

Currently, we require cash to fund our working capital needs. We fund our cash requirements primarily through operations and customer deposits. We expect to fund our liquidity requirements, including interest on our convertible debt and capital expenditures, primarily through revenue and bookings for which we receive deposits in advance of shipment.

We anticipate that with our expected revenues and customer deposits, together with our existing cash balance at March 31, 2009, we would have sufficient capital to meet our working capital requirements for the next twelve months if our cost cutting is successful. Additionally, given fluctuations in the timing and size of customer orders and deposits, we are working on securing senior bank financing up to $1.0 million to improve cash management and provide the business greater short-term liquidity.   If we do not achieve the revenues and customer deposits as and when planned, we may need to access additional sources of financing, including the proposed senior bank financing. If these additional sources of liquidity are unavailable to us, we may face very substantial liquidity pressures that we may not be able to sustain. While we are working on securing senior bank financing, the state of the credit markets coupled with our history of losses may make it difficult to secure a working capital line, or any additional debt, on acceptable terms.

Long Term Debt

On November 14, 2008 we entered into the Agreement with, and sold the Debenture to, Global Strategic Partners. The Debenture bears interest at nine percent (9.0%) payable quarterly in arrears. The Debenture is due and payable on the earlier to occur of (i) November 14, 2015 or (ii) the acceleration of the maturity of the Debenture upon the occurrence of an Event of Default. GSP may, at its option, on any of the maturity date, the date that any interest payment is due, or the date on which a change of control occurs, convert all or any portion of the outstanding principal amount of the Debenture into shares of our common stock at a $1.25 per share.

On November 14, 2008 we also issued the Warrant to GSP, giving it the right to purchase up to fifty percent (50%) of our outstanding common stock. The Warrant can be exercised by GSP in two (2) tranches at any time prior to the earlier to occur of: (i) the seventh anniversary of the date of the Agreement, (ii) the Third Anniversary or (iii) such time as GSP has acquired fifty percent (50%) of the total number of shares of our common stock then outstanding on a fully diluted basis. The first tranche is exercisable at $2.00 per share up to forty percent (40%) of our common stock then outstanding on a fully diluted basis and the second tranche is exercisable at $3.00 per share up to fifty percent (50%) of our common stock then outstanding on a fully diluted basis.

In connection with the Financing, we repaid the entire amount due under the Amended and Restated Loan and Security Agreement, dated as of October 20, 2008, with Silicon Valley Bank and the Amended and Restated Export-Import Bank Loan and Security Agreement, dated as of October 20, 2008, with Silicon Valley Bank. The Payoff amount was approximately $1,050,000.

As of March 31, 2009, we did not have a credit line or bank facility in place. In May 2009 the Company and GSP agreed to defer the interest payments due and payable on each of July 1, 2009, October 1, 2009 and January 4, 2010. The deferred payments will accrue interest at nine percent per annum and will be payable in eight equal quarterly installments on the first day of such quarter beginning on April 1, 2010.

Operating, Investing and Financing Activities

As of March 31, 2009, we had approximately $850,000 in cash and cash equivalents, compared to $1,895,000 as of December 31, 2008. Our operating activities used cash of $982,000 for the three months ended March 31, 2009. The decrease in cash flows was primarily due to working capital fluctuations particularly an increase in accounts receivable and net loss for the period.

As of December 31, 2008, we had approximately $1,895,000 in cash and cash equivalents, compared to $756,000 as of December 31, 2007. For the year ended December 31, 2008, the Company used cash of approximately $2,559,000 by an increase in account payables and accrued expenses to fund our net loss, our investment in inventories, and increase in prepaid expenses, primarily due to the Financing costs, which was offset by a decrease in trade account receivables.

The Company used cash of $67,000 and $296,000 for investing activities for the three months ended March 31, 2009 and 2008, respectively, for the purchase of capital equipment and renovations to our Company's facilities.

The Company generated cash of $4,000 and $11,000 for financing activities for the three months ended March 31, 2009 and 2008, respectively.

Contractual Obligations

Our contractual obligations as of March 31, 2009 are as follows:

	Payment due by period				
Contractual Obligation	Total	Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years
Convertible debt (1)	$ 7,604	$ 450	$ 900	$ 900	$ 5,354
Operating leases	1,227	474	735	18	-
Purchase obligations (2)	9	9	-	-	-
	$ 8,840	$ 933	$ 1,635	$ 918	$ 5,354

(1) Includes principal and interest payments, principal is due only at maturity unless called upon following an event of default under the convertible debenture agreement. See discussion above on Long Term Debt.

(2) Purchase obligations consist of commitments for production materials and supplies.

Off-Balance Sheet Arrangements

We are not a party to any off-balance sheet arrangements.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Our financial instruments are generally not subject to changes in market value as a result of changes in interest rates due to the short maturities of the instruments. Our fixed rate debt is not exposed to cash flow or interest rate changes but is exposed to fair market value changes in the event of refinancing this fixed rate debt. We do not have significant exposure to fluctuations in foreign exchange rates.

Item 4. Controls and Procedures

The certificates of the Company's chief executive officer and chief accounting officer attached as Exhibits 31.1 and 31.2 to this Quarterly Report on Form 10-Q include, in paragraph 4 of such certifications, information concerning the Company's disclosure controls and procedures, and internal control over financial reporting. Such certifications should be read in conjunction with the information contained in this Item 4 for a more complete understanding of the matters covered by such certifications.

Disclosure Controls and Procedures

The Company's management, with the participation of the Company's chief executive officer and chief accounting officer, evaluated the effectiveness of the Company's disclosure controls and procedures as of March 31 2009. The term "disclosure controls and procedures", as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), means controls and other procedures of a company that are designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized, and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its chief executive officer and controller, as appropriate, to allow timely decisions to be made regarding required disclosure. It should be noted that any system of controls and procedures, however well designed and operated, can provide only reasonable, and not absolute, assurance that the objectives of the system are met and that management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of the Company's disclosure controls and procedures as of March 31, 2009, the Company's chief executive officer and chief accounting officer concluded that, as of such date, the Company's disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control Over Financial Reporting

There were no changes to the Company's internal control over financial reporting during the quarter ended March 31, 2009 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

The Company is not a party to any material legal proceedings.

Item 1A. Risk Factors

You should carefully consider the risks and uncertainties described below and the other information in this filing before deciding to purchase our common stock. If any of these risks or uncertainties occurs, our business, financial condition or operating results could be materially harmed. In that case the trading price of our common stock could decline and you could lose all or part of your investment. The risks and uncertainties described below are not the only ones we may face. We believe that this filing contains forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995. Forward-looking statements may include the words “may,” “estimate,” “intend,” “continue,” “believe,” “expect,” “anticipate,” and other similar words Such statements are based on management’s current expectations and are subject to facts that could cause results to differ materially from the forward-looking statements. For further information you are encouraged to review our filings with the Securities and Exchange Commission, including our Annual Report on Form 10K for the periods ended December 31, 2008. We assume no continuing obligation to update the information contained in this filing.

We have experienced operating losses from continuing operations in three of our last five fiscal years, including the fiscal year ended December 31, 2008, and we may not be able to achieve consistent profitability in the future.

For three of the past five fiscal years, as well as the three months ended March 31, 2009, we have experienced losses from continuing operations. During the quarter ended March 31, 2009 and the year ended December 31, 2008 we had a net loss of $690,000 and $4,011,000, respectively. It is anticipated that, even with the expenses changes implemented in first quarter in 2009, the Company will have a net loss in the current fiscal year.

The Company must become cash-flow positive.

We believe that our existing cash, expected revenue, customer deposits, and potential senior bank financing should be sufficient to meet our working capital requirements for the next twelve months. In the first quarter of 2009 we have initiated an aggressive cost reduction program that includes headcount reductions as well as the elimination of all non-essential discretionary spending such as travel, consulting and marketing programs. However, if we sustain a revenue shortfall that we can’t compensate for through additional cost cuts, or our potential senior bank financing is not obtained or obtained and subsequently withdrawn, it is possible that we could face unsustainable liquidity pressures. This concern is accentuated by the fact that current credit markets, coupled with our history of losses, has made it possible that we would not be able to obtain alternative or additional financing. Under these circumstances, it

is possible that we could default under our financing agreements, which default could force us to seek protection under the bankruptcy laws and cause our investors to sustain a loss of their investment in our shares.

The current credit and financial market conditions may exacerbate certain risks affecting our business.

Increased concerns about credit markets, consumer confidence, economic conditions, volatile corporate profits and reduced capital spending could negatively impact demand for our products. We may experience in the future, reduced demand for our products because of the uncertainty in the general economic environment in which our customers and we operate. The current tightening of credit in financial markets may adversely affect the ability of our customers and suppliers to obtain financing, which could result in a decrease in, or deferrals or cancellations of, the sale of our products. If global economic and market conditions, or economic conditions in the United States, remain uncertain or persist, spread, or deteriorate further, we may experience a material adverse effect on our business, operating results and financial condition. Unstable economic, political and social conditions make it difficult for our customers, our suppliers and us to accurately forecast and plan future business activities. If such conditions persist, our business, financial condition and results of operations could suffer. We cannot project the extent of the impact of the economic environment specific to our industry.

The failure of any banking institution in which we deposit our funds or the failure of such banking institution to provide services in the current economic environment could have a material adverse effect on our results of operations, financial condition or access to borrowings.

The capital and credit markets have been experiencing extreme volatility and disruption. In recent months, the volatility and disruption have reached unprecedented levels. In some cases, the markets have exerted downward pressure on stock prices and credit capacity for certain issuers, as well as pressured the solvency of some financial institutions. Some of these financial institutions, including banks, have had difficulty performing regular services and in some cases have failed or otherwise been largely taken over by governments. If we are unable to access some or all of our cash on deposit, either temporarily or permanently, it could have a negative impact on our operations, including our reported net income, or our financial position, or both.

The occurrence of an event of default under our financing could result in substantial losses to our stockholders.

The $5,000,000 in financing that we received in November, 2008 (the "Financing") would become immediately due and payable upon the occurrence of an Event of Default under the Financing documents. See also the Form 8-K filed by the Company with the Securities and Exchange Commission on November 20, 2008 (the "Financing 8-K") for a full discussion of the events that constitute an Event of Default. Although most of the Events of Default are standard provisions relating to timely payments, accuracy of representations, solvency, and the absence of a change of control, an Event of Default will also occur if our stockholders fail to approve an increase in our authorized shares to a number sufficient to allow the Warrant (defined and discussed under "Sales of Unregistered Securities" in Part II, Item 5) to be exercised in full, which event is entirely beyond the control of management. We have submitted an amendment to our certificate of incorporation increasing the number of common stock authorized under our certificate of incorporation for shareholder approval at our annual meeting to be held on June 4, 2009. If any Event of Default occurs, there can be no assurance that we would be able to repay the Financing or be able to raise additional funds to make such payment. Failure to repay the Financing could force us to reorganize our debts, possibly in bankruptcy, in which event our common stock could likely become worthless.

We face intense competition in many of our markets.

Our Microfluidizer product line of high-shear fluid processors has direct competition in its major markets, including its most important markets in the pharmaceutical, biotechnology and coatings/chemical industries. The severity of the competition that we confront requires that we continuously invest in research and development in order to keep our product line competitive. Despite such expenditures, however, there can be no assurance that we will be able to meet the enhancement challenges posed by our competitors, or that we will be able to create or exploit the kinds of innovations, such as our Microfluidics Reaction Technology, needed to drive future sales.

In addition, we face, and will continue to face, intense competition from other companies who manufacture and sell fluid processing systems used in particle size reduction, mixing, milling, dispersing, homogenizing, cell disruption and liposomal encapsulation applications. We expect competition to intensify in the fluid processing systems field as technical advances are made and become more widely known, and such increased competition may have a material adverse effect upon our business.

Our future success will depend in large part on our ability to maintain a technologically superior product line. Rapid technological development by us or others may result in our products or technologies becoming obsolete before we recover the expenses we incur in connection with their development. Products offered by us could be made obsolete by less expensive or more effective technologies. There can be no assurance that we will be able to make the enhancements to our technology necessary to compete successfully with newly emerging technologies.

We may experience uncertain economic trends that adversely impact our business.

We may experience in the future reduced demand for our products as a result of the uncertainty in the general economic environment in which our customers and we operate. We cannot project the extent of the impact of the economic environment specific to our industry. If economic conditions worsen or if an economic slowdown occurs, we may experience a material adverse effect on our business, operating results and financial condition.

We rely on suppliers, vendors and subcontractors.

We do not manufacture most of the components contained in our Microfluidizer materials processor equipment, but rather subcontract the manufacture of most components. Based on quality, price, and performance, we have selected certain suppliers, vendors, and subcontractors that provide parts, subassemblies, machining and finishing of components that are assembled by our production staff. It is possible that, as a result of the current economic slowdown or other reasons, one or more of our suppliers, vendors or subcontractors could go out of business, or not ship on open account, or otherwise be unable to supply our needs. Although we have identified alternate sources for parts, components, machining and finishing integral to the manufacture of our products, there can be no assurance that a transition to an alternative source would not entail quality assurance or quality control difficulties, on-time delivery problems, or other transition problems, any or all of which could have an impact on our production of equipment and could have a material adverse effect on our business, financial condition, or results of operations.

Many of our current and potential customers are from the pharmaceutical and biotechnology industries and are subject to risks faced by those industries.

We derive a substantial portion of our revenues from pharmaceutical and biotechnology companies. We expect that pharmaceutical and biotechnology companies will continue to be one of our major sources of revenues for the foreseeable future. As a result, we are subject to risks and uncertainties that affect the pharmaceutical and biotechnology industries, such as pricing pressures as third-party payers continue challenging the pricing of medical products and services, government regulation, ongoing consolidation and uncertainty of technological change, and to reductions and delays in research and development expenditures by companies in these industries.

In particular, the biotechnology industry is dependent on raising capital to fund operations. If biotechnology companies are unable to obtain the financing necessary to purchase our products, our business and results of operations could be materially adversely affected. As it relates to both the biotechnology and pharmaceutical industries, many companies have significant patents that have expired or are about to expire, which could result in reduced revenues for those companies. If pharmaceutical companies suffer reduced revenues as a result of these patent expirations, they may be unable to purchase our products, and our business and results of operations could be materially adversely affected.

In addition, we are dependent, both directly and indirectly, upon general health care spending patterns, particularly in the research and development budgets of the pharmaceutical and biotechnology industries, as well as upon the financial condition and purchasing patterns of various governments and government agencies. Many of our customers, including universities, government research laboratories, private foundations and other institutions, obtain funding for the purchase of products from grants by governments or government agencies. There exists the risk of potential decrease in the level of governmental spending allocated to scientific and medical research, which could substantially reduce or even eliminate these grants. If government funding necessary to purchase our products were to decrease, our business and results of operations could be materially adversely affected.

Lastly, because our Financing was provided by an affiliate of a pharmaceutical company that competes with other pharmaceutical companies, it is possible that the other companies might decide against doing business with us in the future for competitive reasons. If a significant number of pharmaceutical companies were to reduce their purchases of our products for this or any other reason, our business and results of operations could be materially adversely affected.

We have only one manufacturing facility.

We have a single manufacturing facility located in Newton, Massachusetts. Our success depends on the efficient and uninterrupted operation of that facility. Whether as a result of a fire, natural disaster, or other cause, any disruption to our manufacturing operations would significantly impair our ability to operate our business on a day-to-day basis. Although we maintain business interruption insurance, our business would be injured by any extended interruption of the operations of our manufacturing facility. Further, although we carry property and business interruption insurance, our coverage may not be adequate to compensate us for all losses that may occur. This insurance may not continue to be available to us. Finally, if we seek to replicate our manufacturing operations at another location, we will face a number of technical as well as financial challenges, which we may not be able to address successfully.

We rely on our trade secrets to protect our technology.

Our Microfluidizer processor equipment method patent expired on March 13, 2007 and our device patent expired on August 6, 2002. In addition, we have neither sought patent protection for our Microfluidizer processor or our interaction chamber nor trademark protection of our Microfluidizer trade name in any country other than the United

States. As such, our proprietary rights are not subject to the protection of patent or trademark laws of foreign countries where our equipment is sold. Although we have made many alterations, improvements and advances to our equipment over the years and continue to make such advancements with such modifications and innovations having been and being treated by us as trade secrets, the lack of our patent protections will expose us to potential competition that would likely have a material adverse effect on us.

To protect our proprietary rights, we rely on a combination of trademark laws, trade secrets, confidentiality agreements, contractual provisions and technical means. In the event of a breach of these protections, there can be no assurance that these measures will prove to have been adequate to protect our interests, or that we will have sufficient resources to prosecute or prevail in an action against a third party.

We may be subjected to increased government regulation which could affect our ability to sell our products outside of the United States.

Although United States governmental restrictions on technology transfer, import, export and customs regulations and other present local, state or federal regulation, have not had a significant effect on us historically, any future legislation or administrative action restricting our ability to sell our products to certain countries outside the United States could significantly affect our ability to make certain foreign sales. The extent of adverse governmental regulation, which might result from future legislation or administrative action, cannot be accurately predicted. In particular, the USA Patriot Act and other governmental regulations may impose export restrictions on sale of equipment or transfer of technology to certain countries or groups. There can be no assurance that sale of our equipment will not be impacted by any such legislation or designation. Depending upon which countries and sales may be designated for trade restriction such action could have a material adverse effect on our business, financial condition, or results of operations. Also, certain agreements that may be entered into by us involving exclusive license rights may also be subject to national or supranational antitrust regulatory control, the effect of which cannot be predicted.

We rely on our top management and technical personnel.

Our continued operation, innovation and growth are to some significant degree reliant on the continued services of our executive officers and leading technical personnel. There can be no assurance that we will be able to retain such management and technical personnel if employment is offered by other companies better able to pay higher compensation, provide more and better benefits, or willing to offer longer term job security by entering into employment contracts with our employees. Further, there can be no assurance that key executive officers and leading technical personnel will not leave our employment or either die or become disabled to an extent that they cannot render their services to us. Though we believe that we can identify and recruit replacement key management and technical personnel, there can be no assurance as to such availability, the length of time required to obtain such replacement management and technical personnel, the salary level that may have to be paid to obtain their respective services, or the impact on operations that may be experienced through the interim absence of such key management and technical personnel. The loss of our top management or leading technical personnel could, therefore, have a material adverse effect on our business, financial condition, or results of operations.

Our stock is listed on the OTC Bulletin Board and our stockholders may have limited liquidity.

Our common stock is quoted on the OTC Bulletin Board, which provides significantly less liquidity than a securities exchange (such as the NYSE Amex, the New York Stock Exchanges or The NASDAQ Stock Market). In general, over the past two years, fewer than 20,000 shares of our common stock have traded on a daily basis.

Our quarterly revenues and stock performance are variable.

The timing of orders including completion of our factory acceptance testing can impact the actual shipment date, which will significantly affect quarterly revenues and net income results for particular quarters which may cause increased volatility in both our revenues and stock price.

We allow our customers to lease some of our products and those leases may not turn into sales.

We sometimes rent our products to our customers prior to or instead of selling a product to a customer. Our products are expensive, and customers frequently want to test out a product's capabilities prior to purchase. We have had reasonable success in converting rentals into subsequent sales of the same or a newer product; however, there is no guarantee that we will continue to be able to convert any of our leases into sales.

We may be subject to product liability claims from our customers or by persons harmed by our customers' products.

We maintain what we deem to be reasonable levels of product liability coverage through insurance policies with a reasonably small deductible. Nonetheless, inasmuch as we sell our equipment to a number of customers who make pharmaceutical preparations and consumer cosmetics, there can be no assurance that if a consumer of end products is injured or dies from such product that a suit by an injured party (or a class of similar situated plaintiffs) will not include us as well as the maker of the drug or cosmetic. Although we may have no control over the manufacture of end-products made on our equipment, we may not be able to bar a plaintiff's claims against all parties whose products and equipment were involved in the manufacturing process under a variety of legal theories of liability. We may be required to present a vigorous and costly defense if we cannot be dismissed from such an action. The cost of such legal defense may significantly impact our cash flow.

Our international business operations expose us to a variety of risks.

For the three months ended March 31, 2009 and 2008, shipments outside of North America accounted for approximately 31.5% and 57.6%, respectively, of our net revenues in those periods. In particular, approximately 1.0% and 7.1% of our net revenues in the three months ended March 31, 2009 and 2008, respectively, resulted from sales to Japan and approximately 3.1% and 9.7% of our net revenues in the three months ended March 31, 2009 and 2008, respectively resulted from sales to China. In addition, approximately 20.3% and 38.8% of our net revenues resulted from sales to Europe in the three months ended March 31, 2009 and 2008, respectively. We expect that shipments outside of North America will continue to account for a significant portion of our total net product

We attempt to reduce some of our risk related to sales and shipments outside of the United States by requiring that our contracts generally be paid in United States Dollars. Nevertheless, a downturn in the economies of Japan, Korea or Europe might reduce investment in new technology or products while a weakening of foreign currency against the United States Dollar would make our products more expensive, each of which could have a substantial impact on our operating results.

In addition, a significant portion of our total net revenue is subject to the risks associated with shipping to foreign markets in general, including unexpected changes in legal and regulatory requirements; seasonality of our revenue in Europe; changes in tariffs; political and economic instability; risk of terrorism; difficulties in managing distributors and representatives; difficulties in protecting our intellectual property overseas; and natural disasters, any of which could have a negative impact on our operating results.

We may experience difficulties in the future in complying with Sarbanes-Oxley Section 404 ("Section 404"); and continued implementation and maintenance of internal controls necessary for continued compliance with Section 404 may result in our incurring of additional costs.

We are required to evaluate our internal controls under Section 404 of the Sarbanes-Oxley Act of 2002. We were also required to furnish a report by our management on our internal controls over financial reporting beginning with our annual report on Form 10-K for the fiscal year ended December 31, 2008. Such report contains, among other matters, an assessment of the effectiveness of our internal control over financial reporting as of the end of our fiscal year, including a statement as to whether or not our internal control over financial reporting is effective. While we have completed our self-assessment as to the effectiveness of internal control over financial reporting for the year ended December 31, 2008, which did not identify material weaknesses in our internal control systems, there can be no assurance that future material weaknesses in our internal control systems will not be identified as a result of changing financial or operating conditions. In addition, although we are currently not required to subject our internal controls to audit by our independent registered public accounting firm until at least our fiscal year ending December 31, 2009, there can be no assurance that an audit of our internal controls will not result in the identification of a material weakness. If we fail to maintain proper and effective internal controls in future periods, it could adversely affect our operating results, financial condition and our ability to run our business effectively and could cause investors to lose confidence in our financial reporting. In the event that it is determined that our internal control over financial reporting is not effective, as defined under Section 404, investor confidence in us may be adversely affected and could cause a decline in the market price of our stock.

Future changes in financial accounting standards may adversely affect our reported results of operations.

A change in accounting standards can have a significant effect on our reported financial results. New accounting pronouncements and varying interpretations of accounting pronouncements have occurred and may occur in the future. These new accounting pronouncements may adversely affect our reported financial results.

If our accounting estimates are not correct, our financial results could be adversely affected.

Management judgment and estimates are necessarily required in the application of our Critical Accounting Policies. We discuss these estimates in the subsection entitled Critical Accounting Policies included in the Management's Discussion and Analysis of Financial Condition and Results of Operations section of our Annual and Quarterly Reports with the Securities and Exchange Commission. If our estimates are incorrect, our future financial operating results and financial condition could be adversely affected.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None.

Item 3. Defaults Upon Senior Securities

None.

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

None.

Item 5. Other Information

None.

Item 6. Exhibits

Exhibits

10.1(1) Amendment No. 2 to Registration Rights Agreement, Amendment No. 2 to Debenture and Warrant Purchase Agreement, and Amendment No. 1 to Security Agreement dated as of March 11, 2009 by and between Microfluidics International Corporation and Global Strategic Partners, LLC.

10.1(2)*Letter dated March 9, 2009 from Microfluidics International Corporation to Peter F. Byczko.

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 Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

32.2 Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

(1) Incorporated by reference from the Company's Current Report on Form 8-K dated March 11, 2009.

(2) Incorporated by reference from the Company's Current Report on Form 8-K dated March 31, 2009.

* This exhibit relates to a management contract or to a compensatory plan or arrangement.

The file number for our Securities Exchange Act reports is 0-11625

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.

Microfluidics International Corporation

By: /s/ Michael C. Ferrara
Michael C. Ferrara
Chief Executive Officer

By: /s/ Peter F. Byczko
Peter F. Byczko
Vice President Finance & Chief Accounting Officer

Dated: May 15, 2009