

SECURITIES AND EXCHANGE COMMISSION

FORM 424B3

Prospectus filed pursuant to Rule 424(b)(3)

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FILER

**MEDICALCV INC**

CIK: **1144284** | IRS No.: **411717208** | State of Incorporation: **MN** | Fiscal Year End: **0430**  
Type: **424B3** | Act: **33** | File No.: **333-145169** | Film No.: **071293952**  
SIC: **3841** Surgical & medical instruments & apparatus

Mailing Address

9725 SOUTH ROBERT TRAIL  
INVER GROVE HEIGHTS MN  
55077

Business Address

9725 SOUTH ROBERT TRAIL  
INVER GROVE HEIGHTS MN  
55077  
6514523000



**Prospectus Supplement No. 7**

(to Final Prospectus dated August 14, 2007)

This Prospectus Supplement No. 7 supplements and amends the final prospectus dated August 14, 2007, as supplemented and amended by Supplement No. 1 thereto dated August 21, 2007, Supplement No. 2 thereto dated September 11, 2007, Supplement No. 3 thereto dated September 14, 2007, Supplement No. 4 thereto dated September 19, 2007, Supplement No. 5 thereto dated October 11, 2007 and Supplement No. 6 thereto dated October 22, 2007 (collectively, the "Final Prospectus"), relating to the sale from time to time of up to 959,400 shares of our common stock by certain selling shareholders.

On December 7, 2007, we filed with the U.S. Securities and Exchange Commission the attached Form 10-QSB relating to the quarterly period ending October 31, 2007. The Form 10-QSB also discloses that the Board of Directors amended and restated our Bylaws, effective December 5, 2007. In particular, our Bylaws now permit us to issue uncertificated shares of stock in accordance with recently approved SEC regulations and now generally require a minimum of 10 days notice in connection with annual and special meetings of shareholders.

This Prospectus Supplement No. 7 should be read in conjunction with the Final Prospectus and is qualified by reference to the Final Prospectus except to the extent that the information in this Prospectus Supplement No. 7 supersedes the information contained in the Final Prospectus.

Our shares of common stock are quoted on the OTC Bulletin Board and trade under the ticker symbol "MCVI." On December 7, 2007, the closing price of a share on the OTC Bulletin Board was \$1.60.

**Investing in our common stock involves a high degree of risk, including the risk that we have no assurance of future profitability and the fact that the report of our independent registered public accounting firm expresses doubt about our ability to continue as a going concern. See "Risk Factors" beginning on page 5 of the Final Prospectus dated August 14, 2007.**

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**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this Prospectus Supplement No. 7 is truthful or complete. Any representation to the contrary is a criminal offense.**

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**The date of this Prospectus Supplement No. 7 is December 10, 2007.**

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

WASHINGTON, DC 20549

**FORM 10-QSB**

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

**FOR THE QUARTERLY PERIOD ENDED OCTOBER 31, 2007**

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

Commission File Number 000-33295

**MedicalCV, Inc.**

(Exact Name of Small Business Issuer as Specified in Its Charter)

**Minnesota**  
(State or Other Jurisdiction  
of Incorporation or Organization)

**41-1717208**  
(I.R.S. Employer  
Identification No.)

**9725 South Robert Trail  
Inver Grove Heights, Minnesota 55077  
(651) 452-3000**

(Address of Principal Executive Offices and Issuer's  
Telephone Number, including Area Code)

Check whether the issuer: (1) filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the past 12 months (or such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes  No

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes  No

As of November 30, 2007, the issuer had outstanding 9,839,724 shares of common stock, \$0.01 par value.

Transitional Small Business Disclosure Format (check one)  Yes  No

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**TABLE OF CONTENTS**

[PART I](#)                    [FINANCIAL INFORMATION](#)

<a href="#">ITEM 1</a>	<a href="#">Condensed Financial Statements</a>
<a href="#">ITEM 2</a>	<a href="#">Management' s Discussion and Analysis or Plan of Operation</a>
<a href="#">ITEM 3</a>	<a href="#">Controls and Procedures</a>

[PART II](#)                    [OTHER INFORMATION](#)

<a href="#">ITEM 1</a>	<a href="#">Legal Proceedings</a>
<a href="#">ITEM 4</a>	<a href="#">Submission of Matters to a Vote of Security Holders</a>
<a href="#">ITEM 5</a>	<a href="#">Other Information</a>
<a href="#">ITEM 6</a>	<a href="#">Exhibits</a>

[SIGNATURES](#)

[INDEX TO EXHIBITS](#)

**PART I**

**FINANCIAL INFORMATION**

**ITEM 1 CONDENSED FINANCIAL STATEMENTS**

**MEDICALCV, INC.  
CONDENSED BALANCE SHEETS**

	<u>October 31, 2007</u>	<u>April 30, 2007</u>
	(unaudited)	
<b>ASSETS</b>		
<b>CURRENT ASSETS</b>		
Cash and cash equivalents	\$ 6,925,420	\$ 8,950,983
Prepaid expenses and other current assets	167,747	280,150
Current asset of discontinued operations	42,431	87,323
<b>TOTAL CURRENT ASSETS</b>	<u>7,135,598</u>	<u>9,318,456</u>
PROPERTY, PLANT AND EQUIPMENT, net	766,883	788,835
DEFERRED FINANCING COSTS, net	380,654	349,053
OTHER NONCURRENT ASSETS	15,600	15,600
<b>TOTAL ASSETS</b>	<u>\$ 8,298,735</u>	<u>\$ 10,471,944</u>
<b>LIABILITIES AND SHAREHOLDERS' (DEFICIT) EQUITY</b>		
<b>CURRENT LIABILITIES</b>		
Current amount of related party lease obligation	\$ 350,185	\$ 334,633
Accounts payable	557,868	685,753
Accrued expenses	341,535	353,640

TOTAL CURRENT LIABILITIES	1,249,588	1,374,026
SECURED PROMISSORY NOTES, net of discount	7,013,132	4,248,173
RELATED PARTY LEASE OBLIGATION, less current amount	2,026,268	2,207,600
TOTAL LIABILITIES	10,288,988	7,829,799
COMMITMENTS AND CONTINGENCIES		
SHAREHOLDERS' (DEFICIT) EQUITY		
Preferred stock; \$.01 par value; 1,000,000 and 998,100 shares authorized; no shares issued and outstanding	-	-
Common stock; \$.01 par value; 49,000,000 and 24,000,000 shares authorized; 9,839,724 and 9,837,224 shares issued and outstanding	98,397	98,372
Additional paid-in capital	66,356,437	62,603,147
Accumulated deficit	(68,445,087)	(60,059,374)
TOTAL SHAREHOLDERS' (DEFICIT) EQUITY	(1,990,253)	2,642,145
TOTAL LIABILITIES AND SHAREHOLDERS' (DEFICIT) EQUITY	\$ 8,298,735	\$ 10,471,944

See notes to condensed financial statements.

**MEDICALCV, INC.**  
**CONDENSED STATEMENTS OF OPERATIONS**  
**(UNAUDITED)**

	Three months ended October 31,		Six months ended October 31,	
	2007	2006	2007	2006
SALES	\$ 29,000	\$ -	\$ 52,200	\$ -
COST OF GOODS SOLD	1,740	-	3,132	-
GROSS PROFIT	27,260	-	49,068	-
OPERATING EXPENSES				
Sales and marketing	352,642	406,192	643,475	796,874
General and administrative	1,662,850	539,595	2,937,346	2,757,208
Settlement of legal matter	750,000	-	750,000	-
Research and development	1,616,036	2,154,289	2,782,685	3,742,651
TOTAL OPERATING EXPENSES	4,381,528	3,100,076	7,113,506	7,296,733
LOSS FROM OPERATIONS	(4,354,268)	(3,100,076)	(7,064,438)	(7,296,733)
OTHER INCOME (EXPENSE)				
Interest income	112,187	73,022	230,937	181,371
Interest expense	(756,799)	(29,772)	(1,508,376)	(67,007)
Other income	236	798	1,056	19,725
TOTAL OTHER INCOME (EXPENSE)	(644,376)	44,048	(1,276,383)	134,089
LOSS FROM CONTINUING OPERATIONS	(4,998,644)	(3,056,028)	(8,340,821)	(7,162,644)
LOSS FROM DISCONTINUED OPERATIONS	(22,446)	(22,446)	(44,892)	(13,392)

NET LOSS	\$ (5,021,090)	\$ (3,078,474)	\$ (8,385,713)	\$ (7,176,036)
<b>BASIC AND DILUTED NET LOSS PER COMMON SHARE</b>				
Continuing operations	\$ (0.51)	\$ (0.33)	\$ (0.85)	\$ (0.78)
Discontinued operations	(0.00)	(0.00)	(0.00)	(0.00)
TOTAL NET LOSS PER COMMON SHARE	\$ (0.51)	\$ (0.33)	\$ (0.85)	\$ (0.78)

<b>BASIC AND DILUTED WEIGHTED AVERAGE COMMON SHARES OUTSTANDING</b>				
	9,839,724	9,262,690	9,838,950	9,192,815

See notes to condensed financial statements.

**MEDICALCV, INC.**  
**CONDENSED STATEMENTS OF CASH FLOWS**  
**(UNAUDITED)**

	<u>Six months ended October 31,</u>	
	<u>2007</u>	<u>2006</u>
<b>OPERATING ACTIVITIES</b>		
Net loss	\$ (8,385,713)	\$ (7,176,036)
Adjustments to reconcile net loss to net cash used by operating activities:		
Share-based compensation	831,897	1,064,210
Depreciation	74,550	84,364
Gain from the sales of property, plant and equipment	-	(49,649)
Amortization of discount related to secured promissory notes	608,393	-
Accrued interest related to secured promissory notes	626,566	-
Accrued interest accrual warrant expense related to secured promissory notes	156,229	-
Amortization of deferred financing costs	67,436	3,642
Changes in operating assets and liabilities:		
Prepaid expenses and other assets	157,295	175,875
Accounts payable	(127,885)	142,514
Accrued expenses	(12,105)	22,895
NET CASH USED BY OPERATING ACTIVITIES	<u>(6,003,337)</u>	<u>(5,732,185)</u>
<b>INVESTING ACTIVITIES</b>		
Purchases of property, plant and equipment	(52,598)	(96,051)
Proceeds from the sales of property, plant and equipment	-	50,668
NET CASH USED BY INVESTING ACTIVITIES	<u>(52,598)</u>	<u>(45,383)</u>
<b>FINANCING ACTIVITIES</b>		
Proceeds from issuance of secured promissory notes and warrants, net of offering costs	4,196,152	-
Principal payments under related party lease obligation	(165,780)	(159,817)
Proceeds from issuance of common stock and warrants, net of offering costs	-	2,151,250
Payments of fractional share interests	-	(229)
NET CASH PROVIDED BY FINANCING ACTIVITIES	<u>4,030,372</u>	<u>1,991,204</u>
NET DECREASE IN CASH AND CASH EQUIVALENTS	(2,025,563)	(3,786,364)

## CASH AND CASH EQUIVALENTS

Beginning of year	8,950,983	10,351,570
End of period	\$ 6,925,420	\$ 6,565,206

## SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION

Cash paid for interest	\$ 49,752	\$ 67,007
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## NONCASH INVESTING AND FINANCING ACTIVITIES

Fair value of warrants issued in connection with secured promissory notes	\$ 2,970,000	\$ -
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See notes to condensed financial statements.

## MEDICALCV, INC.

### Notes to Condensed Financial Statements

#### 1. Basis of Financial Statement Presentation

The accompanying unaudited condensed financial statements included herein have been prepared by MedicalCV, Inc. (the "Company") in accordance with accounting principles generally accepted in the United States of America for interim financial information and pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC"). Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted pursuant to such rules and regulations. These condensed interim financial statements should be read in conjunction with the financial statements and the notes thereto included in the Company's Annual Report on Form 10-KSB for the fiscal year ended April 30, 2007.

The condensed balance sheet as of October 31, 2007, the condensed statements of operations for the three and six months ended October 31, 2007 and 2006, and the condensed statements of cash flows for the six months ended October 31, 2007 and 2006 include, in the opinion of management, all adjustments, consisting of normal recurring adjustments and an adjustment for the settlement of a legal matter, necessary for a fair presentation of the financial results for the respective interim periods and are not necessarily indicative of results of operations to be expected for the entire fiscal year ending April 30, 2008.

#### 2. Going Concern

The Company's condensed financial statements as of and for the three and six months ended October 31, 2007 have been prepared on a going concern basis, which contemplates the realization of assets and settlement of liabilities and commitments in the normal course of business. The Company has sustained losses and negative cash flows from operations in recent years and expects these conditions to continue in the foreseeable future. As of October 31, 2007, the Company had an accumulated deficit of \$68,445,087. The level of cash required for operations during the remaining quarters of the fiscal year ending April 30, 2008 is difficult to predict, and management anticipates that continued development and commercialization of its ablation systems will require additional capital. These matters raise substantial doubt about the Company's ability to continue as a going concern. Management intends to seek additional debt or equity financing as it continues to develop and commercialize its ablation systems. However, the Company may not be able to obtain such financing on acceptable terms or at all. If the Company is unable to obtain such additional financing, it will be required to significantly revise its business plan and drastically reduce operating expenditures such that it may not be able to develop or enhance its products, gain market share, or respond to competitive pressures or unanticipated requirements, which could seriously harm its business, financial condition and results of operations. The condensed financial statements do not include any adjustments that might result from the outcome of this uncertainty.

#### 3. Net Loss per Common Share

Basic net loss per common share was computed by dividing the net loss to common shareholders by the weighted average number of common shares outstanding. Diluted net loss per common share reflects the potential dilution that could occur if holders of warrants, options, and other derivative instruments that are not anti-dilutive convert their holdings into common stock. Diluted net loss per common share does not differ from basic net loss per common share for the three and six months ended October 31, 2007 and 2006 due to the loss from continuing operations which would cause the potentially dilutive shares to be anti-dilutive. Options and warrants outstanding to purchase 4,160,393 and 2,118,040 shares of common stock were excluded from the computation for the three months ended October 31, 2007 and 2006, respectively, because the loss from continuing operations would cause such shares to be anti-dilutive. Options and warrants outstanding to purchase 3,961,719 and 2,139,239 shares of common stock were excluded from the computation for the six months ended October 31, 2007 and 2006, respectively, because the loss from continuing operations would cause such shares to be anti-dilutive.

#### 4. Secured Promissory Notes

On April 20, 2007 and June 15, 2007, the Company entered into Secured Note Purchase Agreements for the issuance and sale of 11% Secured Promissory Notes (“11% Notes”) and warrants for the purchase of the Company’s common stock as follows:

Holder	11% Notes Issued at Closing	Shares Issuable upon Exercise of Warrants Issued at Closing
<i>1st Closing on April 20, 2007</i>		
Whitebox (1)	\$ 8,000,000	1,200,000
<i>2nd Closing on June 15, 2007</i>		
Whitebox (1)	2,000,000	300,000
Potomac (2)	1,500,000	224,998
Other accredited investors	1,000,000	150,000
	<u>4,500,000</u>	<u>674,998</u>
<b>Total Initial Issuance at Closings</b>	<b>\$ 12,500,000</b>	<b>1,874,998</b>

- (1) A related party entity that is an affiliate of Whitebox Advisors, LLC (“Whitebox”), then a beneficial owner of more than 10% of the Company’s common stock.
- (2) Related party entities that are affiliates of Potomac Capital Management, LLC (“Potomac”), then a beneficial owner of more than 5% of the Company’s common stock.

The 11% Notes are secured by a first priority security interest in the Company’s assets. The Secured Note Purchase Agreements contain a restrictive covenant that prohibits the Company from issuing more than an aggregate of \$12,500,000 of 11% Notes. The Company has the right to prepay the 11% Notes, subject to a premium payment of 8% if prepayment is made within the first year; 6% if prepayment is made within the second year; and 3% if prepayment is made within the third year. The prepayment premium does not apply if the prepayment of the 11% Notes is a result of a change of control.

The principal amount of each 11% Note and any accrued but unpaid interest is due and payable three years following the respective date of issuance of each note. During the first year, interest on the 11% Notes will accrue and be added to the principal balance of the note. Within 30 days following the end of the first year from issuance of each note, the Company is obligated to issue to each holder an interest accrual warrant for the purchase of the number of shares of the Company’s common stock that is equal to the quotient obtained by dividing 60% of the accrued interest for the first year by \$4.00. During the second and third years from issuance of each note, the Company has the option each quarter to either (i) pay the accrued interest on each note on or before the 15th day following the end of such quarter or (ii) allow the interest



for such quarter to accrue and be added to the principal balance of the note and issue to each holder, within 30 days following the end of such quarter, an interest accrual warrant for the purchase of the number of shares of the Company's common stock that is equal to the quotient obtained by dividing 60% of the accrued interest for the quarter by \$4.00. The form of each interest accrual warrant provides for a term of five years and an exercise price of \$4.00 per share, subject to basic and, for 12 months from the date issued, full-ratchet anti-dilution adjustments. In addition, the form of interest accrual warrant contains a cashless exercise feature and a provision that restricts exercise to the extent that, after exercise, the holder would otherwise beneficially own in excess of 9.99% of the Company's common stock outstanding.

The warrants issued at the 1st and 2nd closings ("Closing Warrants") of the 11% Notes for the purchase of an aggregate of 1,874,998 shares of the Company's common stock have a term of five years from their respective dates of issuance and have exercise prices of \$4.00 per share, subject to basic and, for 12 months from their respective dates of issuance, full-ratchet anti-dilution adjustment provisions. The Closing Warrants contain a provision that restricts exercise to the extent that, after exercise, the holder would otherwise beneficially own in excess of 9.99% of the Company's common stock outstanding. In addition, the Closing Warrants had a cashless exercise right as to any shares the SEC would have not permitted the Company to include in the related resale registration statement and any reductions imposed by the SEC in the number of shares covered by such resale registration statement would have been made on a pro-rata basis. The Company filed a registration statement on August 6, 2007, which became effective on August 13, 2007, to enable the resale of the shares of common stock underlying the Closing Warrants. The Company is required to keep the registration statement current, effective and free from any material misstatement or omission to state a material fact for a specified period, not to exceed 2 years from the effective date of the registration statement. The Company is not required to register for resale the shares of common stock underlying the interest accrual warrants.

The Company used the Black-Scholes-Merton formula to estimate the fair value of the 1st and 2nd Closing Warrants for the purchase of an aggregate of 1,200,000 and 674,998 shares, respectively, of the Company's common stock using the following assumptions:

	<b>1st Closing Warrant (issued April 20, 2007)</b>	<b>2nd Closing Warrants (issued June 15, 2007)</b>
Expected term	5.0 years	5.0 years
Volatility	106.7%	105.9%
Risk free interest rate	4.6%	5.1%
Expected dividend rate	0%	0%

The fair value of the warrants issued at the 1st and 2nd closings were estimated to be \$3,804,000 and \$2,970,000, respectively. The fair value of each Closing Warrant was recorded as a discount to the principal balance of each 11% Note and is amortized into interest expense, using the effective interest rate method, over the 3-year term of each 11% Note. The impact of the discount created from the issuance of the Closing Warrants and 11% interest rate on the principal balance of each note results in an effective interest rate of 41% and 64% for the 1st and 2nd Closings, respectively.

The Company used the Black-Scholes-Merton formula to estimate the fair value of the first-year interest accrual warrants required to be issued within 30 days following the end of the first year of the 1st and 2nd Closings of the 11% Notes for the purchase of an aggregate of 132,000 and 74,250 shares of the Company's common stock, respectively, using the following assumptions:

	<b>1st Year Interest Accrual Warrants</b>
Expected term	5.0 years
Volatility	107.3%
Risk free interest rate	4.2%
Expected dividend rate	0%

Interest expense related to the secured promissory notes of \$696,016, which included \$335,871 of amortization of the discount created from the Closing Warrants, \$345,628 of accrued interest on the 11% Notes, and \$14,517 of expense related to the interest accrual warrants to be issued within 30 days following the end of the first year of the respective issuance of each 11% Note, was included in the condensed statement of operations for the three months ended October 31, 2007.

Interest expense related to the secured promissory notes of \$1,391,188, which included \$608,393 of amortization of the discount created from the Closing Warrants, \$626,566 of accrued interest on the 11% Notes, and \$156,229 of expense related to the interest accrual warrants to be issued within 30 days following the end of the first year of the respective issuance of each 11% Note, was included in the condensed statement of operations for the six months ended October 31, 2007.

The Company paid a 6% commission on the gross proceeds of each closing to the placement agent and certain expenses incurred by the holders and placement agent associated with this transaction. Total financing costs of \$892,000 were incurred by the Company associated with the aggregate of \$12,500,000 in financing. The Company capitalized \$407,523 as deferred financing costs and this amount will be amortized into interest expense over the 3-year term of each respective 11% Note. The remaining \$484,477 in financing costs reduced the amount recorded in additional paid-in capital associated with the fair value of the Closing Warrants.

The secured promissory notes, net of discount, outstanding at October 31, 2007 consisted of the following:

	<u>1st Closing</u> <u>(Due April 2010)</u>	<u>2nd Closing</u> <u>(Due June 2010)</u>	<u>Total</u>
11% Secured Promissory Notes and accrued interest	\$ 8,466,448	\$ 4,686,639	\$ 13,153,087
Unamortized discount remaining	(3,352,813)	(2,787,142)	(6,139,955)
Net balance at October 31, 2007	<u>\$ 5,113,635</u>	<u>\$ 1,899,497</u>	<u>\$ 7,013,132</u>

## 5. Management Incentive Plan

The Company's Management Incentive Plan ("MIP") provides an additional performance incentive to all executive officers and managers identified by the Chief Executive Officer and approved by the Compensation Committee of the Company's Board of Directors. Subject to applicable award opportunity levels described below, the total dollar value of the annual cash bonus, paid no later than 50 days after the performance year, for each participant is calculated as follows: (corporate achievement level times base salary times 70%) plus (individual achievement level times base salary times 30%). The Board of Directors, upon the recommendation of the Compensation Committee, set the following minimum, target and maximum payouts under the MIP as a percentage of base salary for the fiscal year ending April 30, 2008:

	<u>Minimum</u>	<u>Target</u>	<u>Maximum</u>
Chief Executive Officer	20%	30%	45%
All other participants	15%	25%	30%

Based on management's current estimate of the anticipated achievement of at least the minimum level of performance, the Company has recorded an expense of \$37,346 and \$71,876 in the condensed statement of operations for the three and six months ended October 31, 2007, respectively.

## 6. Income Taxes

On May 1, 2007, the Company adopted the provisions of Financial Accounting Standards Board ("FASB") Interpretation No. 48, *Accounting for Uncertainty in Income Taxes - an Interpretation of FASB Statement No. 109*, ("FIN 48") which clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with FASB Statement No. 109, *Accounting for Income Taxes*. FIN 48 prescribes a financial statement recognition threshold and measurement attribute of a tax position taken or expected to be taken in a tax return, and provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. Previously, the Company had accounted for tax contingencies in accordance with Statement of Financial Accounting Standards ("SFAS") No. 5, *Accounting for Contingencies*.

As required by FIN 48, the Company recognizes the financial statement benefit of a tax position only after determining whether it is more-likely-than-not that a tax position will be sustained by the relevant tax authority upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position. For tax positions that meet the more-likely-than-not recognition threshold, the amount recognized in the financial statements is the largest amount of benefit that has a greater than 50% likelihood of being realized upon ultimate settlement with the relevant tax authority.

On May 1, 2007, the date of adoption of FIN 48, the Company applied FIN 48 to all tax positions within the statute of limitations. The adoption of FIN 48 did not result in a cumulative adjustment to the Company's accumulated deficit and the Company determined that it had no unrecognized tax benefits as of May 1, 2007. Therefore, the impact of implementing FIN 48 did not impact the effective tax rate. As of May 1, 2007, the Company did not have any significant tax positions for which it is reasonably possible that the total amounts of unrecognized tax benefits will significantly change during the next twelve months.

The Company's policy is to recognize and classify interest and penalties accrued on any unrecognized tax benefits as a component of income tax expense in the statement of operations. As of the date of adoption of FIN 48 on May 1, 2007, the Company did not have any accrued interest or penalties associated with unrecognized tax benefits, and the Company did not recognize any interest or penalties in the condensed statement of operations for the three and six months ended October 31, 2007.

The Company is subject to income taxes in the U.S. federal jurisdiction and various state jurisdictions. Tax regulations within each jurisdiction are subject to the interpretation of the related tax laws and regulations and require significant judgment to apply. As of October 31, 2007, the Company was not under examination by the Internal Revenue Service ("IRS") or any state taxing jurisdiction in connection with the Company's income taxes. However, all of the Company's federal and state tax returns within the statute of limitations remain open and subject to examination by taxing authorities. With few exceptions, the Company is no longer subject to U.S. federal, state or local income tax examinations by tax authorities for the years before 2003.

In connection with the FIN 48 analysis, the Company analyzed its historical equity transactions with respect to ownership changes within the meaning of Internal Revenue Code Section 382 ("§382"). As a result of such analysis, management believes that an ownership change pursuant to §382 occurred on April 1, 2005 and approximately \$20 million of federal and \$3 million of state pre-change net operating loss carryforwards will be limited. The Company has historically recorded a full valuation allowance to offset its deferred tax assets.

## **7. Employment Agreements and Severance Commitments**

As of October 31, 2007, employment agreements with five officers of the Company contain a provision for payments of up to twelve months severance if the employment of the officer is terminated without cause by the Company or for good reason by the officer as defined in the agreements. The agreements also contain various other provisions customary for agreements of such nature.

### **Current Vice President, Finance and Chief Financial Officer**

On September 7, 2007, the Company entered into an Executive Employment Agreement with Michael A. Brodeur to join the Company as Vice President, Finance and Chief Financial Officer. Effective September 17, 2007, Mr. Brodeur assumed these roles following the September 15, 2007 departure of Eapen Chacko, then the Company's Vice President, Finance and Chief Financial Officer. Pursuant to the terms of the Executive Employment Agreement, Mr. Brodeur receives an annual base salary of \$225,000 and is eligible to receive a pro-rated performance-based cash bonus under the Company's MIP for the fiscal year ending April 30, 2008. The Executive Employment Agreement provides that a severance payment will be made if the employment of Mr. Brodeur is terminated by the Company without cause, or by Mr. Brodeur for good reason. The severance payment would be six months of base salary; and, if at the end of such six-month period, Mr. Brodeur was not employed or engaged as an independent contractor, the Company would pay him up to an additional six months of base salary until he is employed or engaged as an independent contractor. In addition, Mr. Brodeur has agreed to certain nondisclosure and

inventions provisions and certain noncompetition and nonrecruitment provisions during the term of employment and for a period of one year after termination of employment.

On September 17, 2007, the Company granted Mr. Brodeur a ten-year stock option under the Company's Amended and Restated 2001 Equity Incentive Plan to purchase 98,397 shares of the Company's common stock at an exercise price of \$2.30 per share with a four-year vesting period of 25% on the first anniversary of the date of grant and 6.25% quarterly thereafter.

#### **Former Vice President, Finance and Chief Financial Officer**

On June 28, 2007, the Company entered into an amendment to the restated Executive Employment Agreement with Eapen Chacko, then the Company's Vice President, Finance and Chief Financial Officer, to reflect the mutual decision reached concerning Mr. Chacko's departure from the Company. Pursuant to the amendment, Mr. Chacko's employment terminated on September 15, 2007 and the Company paid Mr. Chacko a lump sum severance payment of \$100,000. If Mr. Chacko is not reemployed or serving as an independent contractor, Mr. Chacko may be eligible for six monthly installments of base salary of \$16,667 beginning March 2008 and such payments will cease on the earlier of: 1) the date Mr. Chacko is reemployed or serves as an independent contractor; or 2) September 2008. In addition to these severance payments, the Company has agreed to pay or reimburse Mr. Chacko for medical (COBRA) benefits as set forth in the Executive Employment Agreement. The Company has recorded an expense of \$57,500 and \$100,000 in the condensed statement of operations for the three and six months ended October 31, 2007, respectively, related to the lump sum severance payment of \$100,000 paid to Mr. Chacko.

#### **Former Vice President, Regulatory Affairs and Quality Assurance**

On May 31, 2007, the Company entered into a letter agreement amending certain provisions of the Executive Employment Agreement with Dennis E. Steger, then the Company's Vice President, Regulatory Affairs and Quality Assurance, who advised the Company of his plan to retire. Pursuant to the agreement, Mr. Steger's employment terminated on July 1, 2007 and, in lieu of any severance compensation payable under the Executive Employment Agreement with Mr. Steger, the Company paid Mr. Steger \$20,000 and issued to Mr. Steger a fully vested non-qualified stock option under the Company's Amended and Restated 2001 Equity Incentive Plan for the purchase of 5,734 shares of the Company's common stock. The stock option issued to Mr. Steger on July 1, 2007 has an exercise price of \$5.50 per share, expires on January 1, 2008, and resulted in a non-cash share-based compensation expense of \$8,911 for the six months ended October 31, 2007.

## **8. Shareholders' Equity**

### **Authorized Capital**

On October 11, 2007, shareholders approved an amendment to the Company's Restated Articles of Incorporation. As a result of the amendment, the total authorized shares of all classes which the Company has authority to issue is 50,000,000, consisting of: (a) 1,000,000 shares of preferred stock of the par value of one cent (\$0.01) per share; and (b) 49,000,000 shares of common stock of the par value of one cent (\$0.01) per share. Prior to the amendment, the total authorized shares of all classes which the Company had authority to issue was 25,000,000 consisting of: (a) 1,900 shares of 5% Series A Redeemable Convertible Preferred Stock; (b) 998,100 shares of preferred stock of the par value of one cent (\$0.01) per share; and (c) 24,000,000 shares of common stock of the par value of one cent (\$0.01) per share.

### **Share-Based Compensation Expense**

Share-based compensation expense included in the condensed statement of operations is as follows:

	<u>Three months ended October 31,</u>		<u>Six months ended October 31,</u>	
	<u>2007</u>	<u>2006</u>	<u>2007</u>	<u>2006</u>
Sales and marketing	\$ 16,731	\$ 23,318	\$ 31,351	\$ 45,372
General and administrative (1)	268,202	246,227	549,341	777,068

Research and development (2)	113,572	121,425	251,205	241,770
Total share-based compensation	\$ 398,505	\$ 390,970	\$ 831,897	\$ 1,064,210

- (1) Includes \$13,750 of share-based compensation expense for the six months ended October 31, 2007 related to a restricted stock award for 2,500 shares, which vested immediately, and was granted under the Company's Amended and Restated 2001 Equity Incentive Plan to a non-employee director.
- (2) Includes \$5,052 and \$16,571 of share-based compensation expense for the three months ended October 31, 2007 and 2006, respectively, and \$18,618 and \$31,481 of share-based compensation expense for the six months ended October 31, 2007 and 2006, respectively, related to stock options granted under the Company's Amended and Restated 2001 Equity Incentive Plan to non-employees serving on the Company's Scientific Advisory Board.

As of October 31, 2007, there was \$2,808,188 of total unrecognized share-based compensation cost. The Company expects that cost to be recognized over a weighted-average remaining recognition period of 2.2 years.

### Share-Based Awards

The Company has the following shareholder-approved stock option and equity incentive plans as of October 31, 2007:

	Shares of Common Stock Reserved	Shares of Common Stock Remaining Available for Grant
1992 Stock Option Plan	50,000	-
1993 Director Stock Option Plan	30,000	-
1997 Stock Option Plan	50,000	640
2001 Equity Incentive Plan (1)	1,400,000	1,024,108
2005 Director Stock Option Plan	300,000	171,154
Total	<u>1,830,000</u>	<u>1,195,902</u>

- (1) The Amended and Restated 2001 Equity Incentive Plan provides for awards to be granted in the form of stock options, restricted stock, performance awards, restricted stock units, and/or tax offset payments.

In addition to the shareholder-approved plans, the Company had stock options outstanding outside of the Company's authorized plans for the purchase of an aggregate of 492,212 shares of the Company's common stock as of October 31, 2007.

The following table summarizes information about the Company's stock options for the three and six months ended October 31, 2007:

Options	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value(1)
Outstanding, April 30, 2007	895,454	\$ 8.78		
Granted	80,234	5.48		
Forfeited/Expired	(19,379)	9.42		
Outstanding, July 31, 2007	956,309	8.49		
Granted	186,897	2.37		
Forfeited/Expired	(97,521)	8.17		
Outstanding, October 31, 2007	<u>1,045,685</u>	7.43	6.2	\$ 6,114
Vested and expected to vest, October 31, 2007	897,335	7.56	6.1	\$ 4,322
Exercisable, October 31, 2007	515,681	8.75	5.2	\$ -

- (1) This disclosure excludes those options that have no intrinsic value (i.e. those options that are out-of-the-money using the closing market price of the Company's common stock on October 31, 2007 of \$2.36 per share).

As of October 31, 2007, the exercise prices of stock options outstanding ranged from \$2.15 to \$23.60 per share and the stock options expire at various dates through October 31, 2017. The exercise price of a stock option is set at the closing market price of the Company's common stock on the grant date. Stock options typically vest over four years and have a maximum contractual term of ten years. Substantially all awards provide for accelerated vesting if there is a change in control. There were no stock options exercised in the three and six months ended October 31, 2007 and 2006.

The Company used the Black-Scholes-Merton formula to estimate the grant date fair value of its stock options using the following assumptions:

	Three months ended October 31,		Six months ended October 31,	
	2007	2006	2007	2006
Weighted average grant-date fair value	\$ 1.97	\$ 3.31	\$ 2.60	\$ 5.81
Expected dividend rate (1)	0%	0%	0%	0%
Risk free interest rate (2)	4.2 to 4.4%	4.8%	4.2 to 5.0%	4.8 to 5.1%
Expected term (3)	5.5 to 6.3 years	5.5 to 6.3 years	0.5 to 6.3 years	5.0 to 6.3 years
Expected volatility (4)	107.3 to 108.7%	107.5%	99.0 to 108.7%	107.5 to 111.2%
Weighted-average volatility	107.9%	107.5%	106.9%	110.6%

- (1) **Expected dividend rate**—The Company has not historically paid a cash dividend to common shareholders and does not expect to pay dividends in the future.
- (2) **Risk free interest rate**—The Company used yield rates on U.S. Treasury securities for a period approximating the expected term of the award.
- (3) **Expected term**—Due to the limited number of stock options exercised historically, the Company elected to use the “simplified” method for estimating the expected term of options as allowed under SEC Staff Accounting Bulletin 107. Under this approach, the expected term was calculated by taking the average of the vesting term and the original contract term.
- (4) **Expected volatility**—The Company used historical monthly price observations for a period approximating the expected term of the award, if available, or at least three years to estimate volatility.

On June 27, 2007, the Company granted to the chairperson of the Company's Board of Directors a restricted stock award for 2,500 shares of the Company's common stock. The 2,500 shares, which had a fair value of \$5.50 per share on the date of grant, vested immediately and had an aggregate grant date fair value of \$13,750.

## Warrants

In connection with various financings and other activities, the Company has warrants outstanding for the purchase of the Company's common stock. The following table summarizes information about all warrants for the three and six months ended October 31, 2007:

Warrants	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value(1)
Outstanding, April 30, 2007	2,498,075	\$ 5.80		
Issued	674,998	4.00		
Impact of anti-dilution features	2,276	0.02		

Outstanding, July 31, 2007	3,175,349	5.41			
Outstanding, October 31, 2007	3,175,349	5.41	4.41	\$	-

(1) This disclosure excludes those warrants that have no intrinsic value (i.e. those warrants that are out-of-the-money using the closing market price of the Company' s common stock on October 31, 2007 of \$2.36 per share).

As of October 31, 2007, the exercise prices of the warrants ranged from \$3.25 to \$29.50 per share and the warrants expire at various dates through March 3, 2015. As of October 31, 2007, warrants for the purchase of 1,915,994 shares of the Company' s common stock contain a full-ratchet anti-dilution provision and warrants for the purchase of 707,405 shares of the Company' s common stock contain a weighted-average anti-dilution provision with a current weighted average exercise price of \$3.97 per share.

## 9. Litigation

On October 19, 2007, the Company entered into a settlement agreement with J Giordano Securities LLC (d/b/a J Giordano Securities Group) ("JGSG") pursuant to which the Company settled and resolved all disputes, claims and matters in controversy between the Company and JGSG in exchange for the Company' s payment to JGSG of \$750,000 in cash. Without admitting any liability or wrongdoing, JGSG and the Company mutually released each other from any and all claims, demands, and causes of action, suits, debts or liabilities of any kind which were or could have been asserted in the federal action or arbitration.

JGSG had filed a complaint for breach of an engagement agreement against the Company in the United States District Court for the District of Connecticut, alleging that JGSG was entitled to additional compensation pursuant to certain financing activities by the Company that occurred in December 2005, January 2006, and October 2006, as well as certain compensation relating to registration of the shares underlying the warrants issued to JGSG as compensation in connection with the April 2005 private placement of the Company' s securities in which JGSG was a placement agent. The Company had moved to dismiss or stay the federal action and to compel arbitration before the National Association of Securities Dealers, pursuant to which the federal action was stayed. JGSG then filed a statement of claim and the Company filed a counterclaim in the arbitration, alleging breach of the engagement agreement and fraud in the inducement. JGSG then filed an amended statement of claim in the arbitration, pursuant to which JGSG claimed it was entitled to alleged damages of \$3,346,565 plus reimbursement for reasonable expenses, interest, costs and attorneys' fees. In order to avoid the costs, uncertainty, and inconvenience associated with adversary proceedings, the Company entered into the above-referenced settlement agreement with JGSG, effective October 19, 2007.

## 10. Concentration of Customers and Products

All of the Company' s revenue in the three and six months ended October 31, 2007 was derived from the sales of a single product to two customers, of which certain physicians also serve on the Company' s Scientific Advisory Board or are Company-paid consultants.

## 11. Discontinued Operations

On April 6, 2005, the Company' s Board of Directors authorized management to discontinue sales and marketing of heart valves effective April 30, 2005, and to seek a buyer for the related production equipment. The carrying amount of asset of discontinued operations as of October 31, 2007 consisted of a prepaid insurance policy which is amortized to the loss from discontinued operations over the policy period.

## ITEM 2 MANAGEMENT' S DISCUSSION AND ANALYSIS OR PLAN OF OPERATION

*The following discussion contains various forward-looking statements within the meaning of Section 21E of the Exchange Act. Although we believe that, in making any such statement, our expectations are based on reasonable assumptions, any such statement may be influenced by factors that could cause actual outcomes and results to be materially different from those projected. When used in the following discussion, the words “anticipates,” “believes,” “expects,” “intends,” “plans,” “estimates” and similar expressions, as they relate to us or our management, are intended to identify such forward-looking statements. These forward-looking statements are subject to numerous risks and uncertainties that could cause actual results to differ materially from those anticipated. Factors that could cause actual results to differ materially from those anticipated, certain of which are beyond our control, are set forth in this document and in our Annual Report on Form 10-KSB for the fiscal year ended April 30, 2007, under the caption “Management’s Discussion and Analysis or Plan of Operation - Cautionary Statement.”*

*Our actual results, performance or achievements could differ materially from those expressed in, or implied by, forward-looking statements. Accordingly, we cannot be certain that any of the events anticipated by forward-looking statements will occur or, if any of them do occur, what impact they will have on us. We caution you to keep in mind the cautions and risks described in this document and in our Cautionary Statement and to refrain from attributing undue certainty to any forward-looking statements, which speak only as of the date of the document in which they appear. We do not undertake to update any forward-looking statement.*

## **Overview**

We develop, manufacture and sell innovative, laser-based surgical ablation systems designed to create precise, clinically relevant lesions, or scars, in soft tissue and in cardiac tissue. We believe our laser-based systems, using a sub-millimeter fiber optic platform, will provide a viable alternative to both existing surgical ablation procedures and catheter ablations. In May 2007, the first human clinical cases were completed using the SOLAR™ Surgical Ablation System (“SOLAR System”) and, in September 2007, the first SOLAR System port-based procedure to treat atrial fibrillation (“AF”) was performed. Through November 30, 2007, 80 cases have been performed with our laser-based systems.

Our systems consist of both capital equipment and associated compatible single-use devices. The capital equipment consists of a laser generator and, where needed, a controller, both of which can be placed on a small mobile cart. We are placing capital equipment in hospitals and training physicians on the use of our laser technology. We have recognized limited revenue from ATRILAZE™ Surgical Ablation System (“ATRILAZE System”) single-use devices and expect to recognize limited revenue from SOLAR and ATRILAZE single-use devices in the first half of calendar year 2008. During the first half of calendar year 2008, we plan to build out our sales force while continuing to collect clinical data for expanded indications and publications. We anticipate that product revenue for the fiscal year ending April 30, 2008 will be limited to the single-use device components of the ATRILAZE and SOLAR Systems.

We received three separate U.S. Food and Drug Administration (“FDA”) 510(k) clearances of our ATRILAZE System for the ablation of soft tissue, including cardiac tissue, in November 2004, October 2005 and April 2006, respectively. We received FDA 510(k) clearance of our SOLAR System for the ablation of soft tissue, not including cardiac tissue, in March 2007. Certain products of other companies have been cleared for soft and cardiac tissue ablation; however, as of November 30, 2007, the FDA has not approved any device for the specific treatment of AF. Unless and until we obtain FDA clearance or approval for the use of our SOLAR System for the ablation of cardiac tissue or, with respect to either system, for the treatment of AF, we and others acting on our behalf may not promote our systems for such uses, make any claim that our systems are safe and effective for such uses, or proactively discuss or train physicians on the use of our systems in connection with such uses. While we cannot lawfully promote our systems for off-label use, similar ablation products are widely used by physicians, at their discretion, for the treatment of AF. Physicians are not restricted by the FDA from using these devices for AF in the practice of medicine. Human clinical trials and additional product development will be required to obtain FDA approval for the use of these products in AF, and it is our intent to conduct such clinical trials for the eventual approval of both products for AF.

## **Critical Accounting Policies**



The preparation of our financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the condensed financial statements and accompanying notes. We believe our estimates and assumptions are reasonable; however, actual results and the timing of the recognition of such amounts could differ from those estimates. We have identified the following critical accounting policies and estimates utilized by management in the preparation of our financial statements: revenue recognition, income taxes, and share-based compensation. Actual amounts could differ significantly from management's estimates. For further discussion of our critical accounting policies and estimates, see our Annual Report on Form 10-KSB for the fiscal year ended April 30, 2007.

**Revenue Recognition.** We currently generate revenue from the sales of single-use medical devices. Revenue is considered to be earned when there is a written sales invoice specifying the terms and conditions of the transaction; the price is fixed; collection of the resulting receivable is probable; title has transferred; and there are no remaining performance obligations. There is no right of return unless the product is defective, damaged, or does not perform according to technical specifications.

**Income Taxes.** On May 1, 2007, we adopted the provisions of Financial Accounting Standards Board ("FASB") Interpretation No. 48, *Accounting for Uncertainty in Income Taxes - an Interpretation of FASB Statement No. 109*, ("FIN 48") which clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with FASB Statement No. 109, *Accounting for Income Taxes*. FIN 48 prescribes a financial statement recognition threshold and measurement attribute of a tax position taken or expected to be taken in a tax return, and provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. Previously, we had accounted for tax contingencies in accordance with Statement of Financial Accounting Standards ("SFAS") No. 5, *Accounting for Contingencies*.

As required by FIN 48, we recognize the financial statement benefit of a tax position only after determining whether it is more likely than not that a tax position will be sustained by the relevant tax authority upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position. For tax positions that meet the more-likely-than-not recognition threshold, the amount recognized in the financial statements is the largest amount of benefit that has a greater than 50% likelihood of being realized upon ultimate settlement with the relevant tax authority.

Our policy is to recognize and classify interest and penalties accrued on any unrecognized tax benefits as a component of income tax expense in the statement of operations.

We establish a valuation allowance if it is more likely than not that all or a portion of the tax assets will not be utilized. The ultimate realization of deferred income tax assets is dependent on the generation of future taxable income, which must occur prior to the expiration of the net operating loss carryforwards, which comprise the majority of the deferred tax assets. As of April 30, 2007 and October 31, 2007, we established a valuation allowance to fully offset our deferred tax assets due to the uncertainty about generating sufficient future taxable income necessary to realize these deferred tax assets, particularly in light of our history of significant operating losses. In addition, future utilization of available net operating loss carryforwards may be limited under Internal Revenue Code Section 382 ("§382") as a result of changes in ownership.

In connection with the FIN 48 analysis, we analyzed our historical equity transactions with respect to ownership changes within the meaning of Internal Revenue Code Section 382 ("§382"). As a result of such analysis, we believe that an ownership change pursuant to §382 occurred on April 1, 2005 and approximately \$20 million of federal and \$3 million of state pre-change net operating loss carryforwards will be limited. We have historically recorded a full valuation allowance to offset our deferred tax assets.

**Share-Based Compensation.** On May 1, 2006, we adopted SFAS No. 123R (revised 2004), *Share-Based Payment*, and elected the modified prospective application transition method. SFAS No. 123R is a revision of SFAS No. 123, *Accounting for Stock-Based Compensation*, and supersedes Accounting Principles Board ("APB") Opinion No. 25, *Accounting for Stock Issued to Employees*, and its related guidance. As required by SFAS No. 123R, we recognize compensation expense during the service period of share-based awards that are granted, modified, repurchased, or cancelled after May 1, 2006 using the grant-date fair value of the award. In addition, compensation expense is recognized for the remaining service period of awards granted prior to, but not yet vested as of May 1, 2006, based on the grant date fair value of the award. In accordance with the modified prospective application transition method of SFAS No. 123R, prior period

results were not restated. We have also implemented the SEC interpretations in Staff Accounting Bulletin No. 107, *Share-Based Payments*, in connection with the adoption of SFAS No. 123R.

We use the Black-Scholes-Merton formula to estimate the grant date fair value of stock option awards, which requires us to develop estimates of, among other assumptions, the expected volatility and the expected term.

Incremental compensation cost for a modification of the terms or conditions of an award is measured by comparing the fair value of the modified award with the fair value of the award immediately before the modification. A cancellation of an award that is not accompanied by the concurrent grant of, or offer to grant, a replacement award or other valuable consideration is accounted for as a repurchase for no consideration. Accordingly, any unrecognized compensation cost is recognized at the cancellation date.

We recognize compensation expense for share-based awards on a straight-line basis over the requisite service period of the award. The amount of share-based compensation recognized is based on the value of the portions of the awards that are ultimately expected to vest. SFAS No. 123R requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Previously recognized compensation expense for the vested portion of share-based awards is not reversed if an award expires unexercised or if an award is forfeited due to employee termination. No compensation cost is recognized for unvested awards that employees forfeit because the requisite service is not rendered. We use historical forfeitures and employee turnover to estimate the number of options that will actually vest. We reevaluate this estimate periodically and adjust the forfeiture rate on a prospective basis as necessary.

**Reclassifications.** Certain reclassifications have been made to the condensed financial statements for the three and six months ended October 31, 2006 to conform to the classification in the condensed financial statements for the three and six months ended October 31, 2007. The reclassifications had no impact on net loss or shareholders' equity.

## Recent Accounting Developments

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements*, which defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles, and expands disclosures about fair value measurements. SFAS No. 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007 and interim periods within those fiscal years. We have not determined what, if any, impact the adoption of SFAS No. 157 on May 1, 2008 will have on our financial statements.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities—Including an amendment of FASB Statement No. 115*, which permits entities to choose to measure many financial instruments and certain other items at fair value. SFAS No. 159 is effective as of the beginning of an entity's first fiscal year that begins after November 15, 2007. We have not determined what, if any, impact the adoption of SFAS No. 159 on May 1, 2008 will have on our financial statements.

In December 2007, the FASB issued SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements – An amendment of ARB No. 51*, which establishes accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary. SFAS No. 160 is effective for fiscal years, and interim periods within those fiscal years, beginning on or after December 15, 2008. We have not determined what, if any, impact the adoption of SFAS No. 160 on May 1, 2009 will have on our financial statements.

In December 2007, the FASB issued SFAS No. 141R, *Business Combinations*, which establishes principles and requirements for how the acquirer recognizes, measures, and discloses the identifiable assets acquired, the liabilities assumed, and any noncontrolling interest in the acquiree; and the goodwill acquired or a gain from a bargain

purchase. SFAS No. 141R is effective for business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. We have not determined what, if any, impact the adoption of SFAS No. 141R will have on our financial statements.

## Results of Operations for the Three Months Ended October 31, 2007 and 2006

*Sales.* Sales of our ATRILAZE System single-use device of \$29,000 were recognized as revenue in the three months ended October 31, 2007 and were derived from two customers, of which certain physicians also serve on our Scientific Advisory Board or are company-paid consultants, representing 60% and 40% of total sales, respectively. Sales of the SOLAR System single-use medical devices are not expected until calendar year 2008. We do not expect to generate measurable sales of the SOLAR System until the fiscal year ending April 30, 2009 at the earliest. Prior to November 2006, historical sales of our ATRILAZE System single-use medical devices were recorded as a reduction of research and development expenses since the primary purpose of offering the device was to obtain clinical research information to assist in the development of the SOLAR System. We anticipate that product revenue for the fiscal year ending April 30, 2008 will be limited to the ATRILAZE and SOLAR System single-use device components.

*Cost of Goods Sold.* The historical cost of the ATRILAZE Systems was previously recorded as research and development expense in the fiscal year ended April 30, 2006 since, at that time, it was believed to have no future economic value. As a result, the cost of goods sold in the three months ended October 31, 2007 consisted exclusively of a 6% royalty expense to LightWave Ablation Systems, Inc. ("LightWave"). The current replacement cost of the ATRILAZE System single-use device inventory, had it been included in cost of goods sold, would not have had a material impact on gross margins or net loss for the three months ended October 31, 2007.

*Sales and Marketing.* Sales and marketing expenses decreased from \$406,192 in the three months ended October 31, 2006 to \$352,642 in the three months ended October 31, 2007. The \$53,550 decrease in sales and marketing expenses resulted primarily from a decrease in travel and entertainment expenses due to a reduction in the size of our company-sponsored Scientific Advisory Board meetings.

*General and Administrative.* General and administrative expenses increased from \$539,595 in the three months ended October 31, 2006 to \$1,662,850 in the three months ended October 31, 2007. The \$1,123,255 increase in general and administrative expenses resulted primarily from an increase of \$390,994 in legal expenses consisting primarily of legal expenses involved with the breach of contract claim by J Giordano Securities LLC and legal expenses for corporate finance matters. Consulting fees in the three months ended October 31, 2006 included a \$272,034 credit due to settlement of an outstanding payable. We incurred \$83,165 in consulting fees in the three months ended October 31, 2007 related primarily to the adoption of FIN 48. Additionally, the three months ended October 31, 2007 included severance expense of \$57,500 related to the departure of our former Vice President, Finance and Chief Financial Officer and an additional \$79,167 in payroll expenses due primarily to changes in accounting personnel.

*Settlement of Legal Matter.* On October 19, 2007, we entered into a settlement agreement with J Giordano Securities LLC (d/b/a J Giordano Securities Group) ("JGSG") pursuant to which we settled and resolved all disputes, claims and matters in controversy between our company and JGSG in exchange for our payment to JGSG of \$750,000 in cash. Without admitting any liability or wrongdoing, JGSG and our company mutually released each other from any and all claims, demands, and causes of action, suits, debts or liabilities of any kind which were or could have been asserted in the federal action or arbitration described further in Part II - Other Information, Item 1 - Legal Proceedings.

*Research and Development.* Research and development expenses decreased from \$2,154,289 in the three months ended October 31, 2006 to \$1,616,036 in the three months ended October 31, 2007. The \$538,253 decrease in research and development expenses resulted primarily from a reduction of \$526,399 in costs associated with external development of the controller component of our ablation systems.

*Interest Expense.* Interest expense increased from \$29,772 in the three months ended October 31, 2006 to \$756,799 in the three months ended October 31, 2007. The \$727,027 increase in interest expense resulted primarily from the 11% Secured Promissory Notes ("11% Notes") outstanding during the three months ended October 31,

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2007. The interest expense related to the 11% Notes consisted of \$345,628 of accrued interest on the 11% Notes, \$335,871 of amortization of the discount on the debt related to the warrants issued at each closing, and \$14,517 of expense related to the interest accrual warrants to be issued within 30 days following the end of the first year of the respective issuance of each 11% Note. Interest expense in the three months ended October 31, 2007 also included \$34,466 in amortization of deferred financing costs related to the 11% Notes.

*Discontinued Operations.* The loss from discontinued operations of \$22,446 in the three months ended October 31, 2007 and 2006 consisted of insurance expense from a prepaid insurance policy related to the heart valve business.

*Income Tax Provision.* We have no income tax provision in the three months ended October 31, 2007 and 2006 due to the net operating losses generated for income tax reporting purposes. We have established a valuation allowance to fully offset deferred tax assets due to the

uncertainty about our ability to generate the future taxable income necessary to realize these deferred tax assets, particularly in light of our history of significant operating losses and changes in ownership.

## Results of Operations for the Six Months Ended October 31, 2007 and 2006

*Sales.* Sales of our ATRILAZE System single-use device of \$52,200 were recognized as revenue in the six months ended October 31, 2007 and were derived from two customers, of which certain physicians also serve on our Scientific Advisory Board or are company-paid consultants, each representing 50% of total sales. Sales of the SOLAR System single-use medical devices are not expected until calendar year 2008. We do not expect to generate measurable sales of the SOLAR System until the fiscal year ending April 30, 2009 at the earliest. Prior to November 2006, historical sales of our ATRILAZE System single-use devices were recorded as a reduction of research and development expenses since the primary purpose of offering the device was to obtain clinical research information to assist in the development of the SOLAR System. We anticipate that product revenue for the fiscal year ending April 30, 2008 will be limited to the ATRILAZE and SOLAR System single-use device components.

*Cost of Goods Sold.* The historical cost of the ATRILAZE Systems was previously recorded as research and development expense in the fiscal year ended April 30, 2006 since, at that time, it was believed to have no future economic value. As a result, the cost of goods sold in the six months ended October 31, 2007 consisted exclusively of a 6% royalty expense to LightWave. The current replacement cost of the ATRILAZE System single-use device inventory, had it been included in cost of goods sold, would not have had a material impact on gross margins or net loss for the six months ended October 31, 2007.

*Sales and Marketing.* Sales and marketing expenses decreased from \$796,874 in the six months ended October 31, 2006 to \$643,475 in the six months ended October 31, 2007. The \$153,399 decrease in sales and marketing expenses resulted primarily from a \$90,615 decrease in travel and entertainment expenses due to a reduction in the size of our company-sponsored Scientific Advisory Board meetings; and a \$118,702 decrease in payroll expenses as the six months ended October 31, 2006 included relocation expenses of \$65,000 for our Vice President, Marketing and payroll expenses of our Vice President, Sales who resigned from employment effective March 31, 2007.

*General and Administrative.* General and administrative expenses increased from \$2,757,208 in the six months ended October 31, 2006 to \$2,937,346 in the six months ended October 31, 2007. The \$180,138 increase in general and administrative expenses resulted primarily from an increase in legal expenses involved with the breach of contract claim by JGSG partially offset by a reduction in share-based compensation expense.

*Settlement of Legal Matter.* On October 19, 2007, we entered into a settlement agreement with J Giordano Securities LLC (d/b/a J Giordano Securities Group) ("JGSG") pursuant to which we settled and resolved all disputes, claims and matters in controversy between our company and JGSG in exchange for our payment to JGSG of \$750,000 in cash. Without admitting any liability or wrongdoing, JGSG and our company mutually released each other from any and all claims, demands, and causes of action, suits, debts or liabilities of any kind which were or could have been asserted in the federal action or arbitration described further in Part II - Other Information, Item 1 - Legal Proceedings.

*Research and Development.* Research and development expenses decreased from \$3,742,651 in the six months ended October 31, 2006 to \$2,782,685 in the six months ended October 31, 2007. The \$959,966 decrease in

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research and development expenses resulted primarily from a reduction of \$924,377 in costs associated with external development of the controller component of our ablation systems.

*Interest Expense.* Interest expense increased from \$67,007 in the six months ended October 31, 2006 to \$1,508,376 in the six months ended October 31, 2007. The \$1,441,369 increase in interest expense resulted primarily from the 11% Notes outstanding during the six months ended October 31, 2007. The interest expense related to the 11% Notes consisted of \$626,566 of accrued interest on the 11% Notes, \$608,393 of amortization of the discount on the debt related to the warrants issued at each closing, and \$156,229 of expense related to the interest accrual warrants to be issued within 30 days following the end of the first year of the respective issuance of each 11% Note. Interest expense in the six months ended October 31, 2007 also included \$63,794 in amortization of deferred financing costs related to the 11% Notes.

*Discontinued Operations.* The loss from discontinued operations of \$44,892 in the six months ended October 31, 2007 consisted of insurance expense from a prepaid insurance policy related to the heart valve business. The loss from discontinued operations of \$13,392 in the six months ended October 31, 2006 consisted of insurance expense of \$44,892 from a prepaid insurance policy offset by a gain of \$31,500 from the sale of fixed assets related to the heart valve business.

*Income Tax Provision.* We have no income tax provision in the six months ended October 31, 2007 and 2006 due to the net operating losses generated for income tax reporting purposes. We have established a valuation allowance to fully offset deferred tax assets due to the uncertainty about our ability to generate the future taxable income necessary to realize these deferred tax assets, particularly in light of our history of significant operating losses and changes in ownership.

## Liquidity and Capital Resources

Cash and cash equivalents decreased from \$8,950,983 at April 30, 2007 to \$6,925,420 at October 31, 2007 due to the following:

Net cash used by operating activities	\$ (6,003,337)
Net cash used by investing activities	(52,598)
Net cash provided by financing activities	4,030,372
Net decrease in cash and cash equivalents	<u>\$ (2,025,563)</u>

*Operating Activities.* The net cash used by operating activities of \$6,003,337 in the six months ended October 31, 2007 resulted primarily from the net loss of \$8,385,713 partially offset by non-cash interest expense of \$1,458,624 and share-based compensation expense of \$831,897. The net cash used by operating activities of \$5,732,185 in the six months ended October 31, 2006 resulted primarily from the net loss of \$7,176,036 partially offset by non-cash share-based compensation expense of \$1,064,210.

*Investing Activities.* The net cash used by investing activities of \$52,598 in the six months ended October 31, 2007 resulted from purchases of property, plant and equipment. The net cash used by investing activities of \$45,383 in the six months ended October 31, 2006 resulted from purchases of property, plant and equipment of \$96,051 partially offset by cash proceeds from the sales of property, plant and equipment of \$50,668.

*Financing Activities.* The net cash provided by financing activities of \$4,030,372 in the six months ended October 31, 2007 resulted primarily from the \$4,196,152 in net cash proceeds obtained from the 2<sup>nd</sup> closing of the 11% Notes in June 2007 (described below) partially offset by payments under our related party lease obligation. The net cash provided by financing activities of \$1,991,204 in the six months ended October 31, 2006 resulted primarily from the \$2,151,250 in net cash proceeds obtained from the October 2006 private placement (described in our Annual Report on Form 10-KSB for the fiscal year ending April 30, 2007) partially offset by payments under our related party lease obligation.

On April 20, 2007 and June 15, 2007, we entered into Secured Note Purchase Agreements for the issuance and sale of 11% Notes and warrants for the purchase of our common stock as follows:

Holder	11% Notes Issued at Closing	Shares Issuable upon Exercise of Warrants Issued at Closing
<i>1st Closing on April 20, 2007</i>		
Whitebox (1)	\$ 8,000,000	1,200,000
<i>2nd Closing on June 15, 2007</i>		
Whitebox (1)	2,000,000	300,000
Potomac (2)	1,500,000	224,998
Other accredited investors	1,000,000	150,000
	<u>4,500,000</u>	<u>674,998</u>
<b>Total Initial Issuance at Closings</b>	<b><u>\$ 12,500,000</u></b>	<b><u>1,874,998</u></b>

- (1) A related party entity that is an affiliate of Whitebox Advisors, LLC (“Whitebox”), then a beneficial owner of more than 10% of our common stock.
- (2) Related party entities that are affiliates of Potomac Capital Management, LLC (“Potomac”), then a beneficial owner of more than 5% of our common stock.

The 11% Notes are secured by a first priority security interest in our assets. The Secured Note Purchase Agreements contain a restrictive covenant that prohibits us from issuing more than an aggregate of \$12,500,000 of 11% Notes. We have the right to prepay the 11% Notes, subject to a premium payment of 8% if prepayment is made within the first year; 6% if prepayment is made within the second year; and 3% if prepayment is made within the third year. The prepayment premium does not apply if the prepayment of the 11% Notes is a result of a change of control.

The principal amount of each 11% Note and any accrued but unpaid interest is due and payable three years following the respective date of issuance of each note. During the first year, interest on the 11% Notes will accrue and be added to the principal balance of the note. Within 30 days following the end of the first year from issuance of each note, we are obligated to issue to each holder an interest accrual warrant for the purchase of the number of shares of our common stock that is equal to the quotient obtained by dividing 60% of the accrued interest for the first year by \$4.00. During the second and third years from issuance of each note, we have the option each quarter to either (i) pay the accrued interest on each note on or before the 15th day following the end of such quarter or (ii) allow the interest for such quarter to accrue and be added to the principal balance of the note and issue to each holder, within 30 days following the end of such quarter, an interest accrual warrant for the purchase of the number of shares of our common stock that is equal to the quotient obtained by dividing 60% of the accrued interest for the quarter by \$4.00. The form of each interest accrual warrant provides for a term of five years and an exercise price of \$4.00 per share, subject to basic and, for 12 months from the date issued, full-ratchet anti-dilution adjustments. In addition, the form of interest accrual warrant contains a cashless exercise feature and a provision that restricts exercise to the extent that, after exercise, the holder would otherwise beneficially own in excess of 9.99% of our common stock outstanding.

The warrants issued at the 1st and 2nd closings (“Closing Warrants”) of the 11% Notes for the purchase of an aggregate of 1,874,998 shares of our common stock have a term of five years from their respective dates of issuance and have exercise prices of \$4.00 per share, subject to basic and, for 12 months from their respective dates of issuance, full-ratchet anti-dilution adjustment provisions. The Closing Warrants contain a provision that restricts exercise to the extent that, after exercise, the holder would otherwise beneficially own in excess of 9.99% of our common stock outstanding. In addition, the Closing Warrants had a cashless exercise right as to any shares the SEC would have not permitted us to include in the related resale registration statement and any reductions imposed by the

SEC in the number of shares covered by such resale registration statement would have been made on a pro-rata basis. We filed a registration statement on August 6, 2007, which became effective on August 13, 2007, to enable the resale of the shares of common stock underlying the Closing Warrants. We are required to keep the registration statement current, effective and free from any material misstatement or omission to state a material fact for a specified period, not to exceed two years from the effective date of the registration statement. We are not required to register for resale the shares of common stock underlying the interest accrual warrants.

We paid a 6% commission on the gross proceeds of each closing to the placement agent and certain expenses incurred by the holders and placement agent associated with this transaction. Total financing costs of \$892,000 were incurred by us associated with the aggregate of \$12,500,000 in financing.

### *Analysis*

We expect to continue to incur operating losses and negative operating cash flow as we seek to drive market adoption of our surgical ablation systems. We have recognized limited revenue from single-use ATRILAZE devices and expect to recognize limited revenue from single-use SOLAR and ATRILAZE devices in the first half of calendar year 2008. Our systems are currently being used in the clinical setting and we have begun to place capital equipment in hospitals and train physicians on the use of our laser technology. We do not expect to generate measurable sales of the SOLAR System until the fiscal year ending April 30, 2009, at the earliest. However, we anticipate that our general and administrative, research and development, and sales and marketing expenses will continue to constitute a material use of our cash

resources. In addition, we expect to incur costs associated with developing the necessary documentation and performing the required testing of our internal controls to meet the requirements of Section 404 of the Sarbanes-Oxley Act. The actual amounts and timing of our expenditures will vary significantly depending upon the progress of our product development and the availability of financing. During the remaining quarters of our fiscal year ending April 30, 2008, we expect to incur capital expenditures aggregating approximately \$150,000, including approximately \$100,000 for facility and building improvements and approximately \$50,000 for equipment. We anticipate using our available cash to fund such capital expenditures. Our cash and cash equivalents balance of \$6,925,420 at October 31, 2007 is expected to last through the fiscal year ending April 30, 2008.

Given the level of our capital resources, we expect to require additional financing to achieve our goal of providing the leading surgical ablation treatment option for AF. Because we are not generating positive cash flow from operations, we will be required to raise additional funds through public or private sales of equity securities or the incurrence of indebtedness. Our ability to fund our business plan depends on the availability of equity and debt financing, which is affected by prevailing economic conditions in the medical device industry and financial, business and other factors, some of which are beyond our control. We cannot assure that we will obtain financing on favorable terms or at all. If we elect to raise additional capital through the issuance and sale of equity securities, the sales may be at prices below the market price of our stock, and our shareholders may suffer significant dilution. In particular, as part of our April and June 2007 debt financing, we issued warrants for the purchase of an aggregate of 1,874,998 shares of common stock with an exercise price of \$4.00 per share and we agreed to issue certain additional interest accrual warrants, all of which contain full-ratchet anti-dilution provisions for a period of 12 months from their respective dates of issuance. Such provisions may increase the dilution other shareholders suffer if we were to raise additional capital through the issuance and sale of equity securities.

Debt financing, if available, may involve significant cash payment obligations, covenants and financial ratios that restrict our ability to operate and grow our business, and would cause us to incur additional interest expense and financing costs. We issued an aggregate of \$12,500,000 of 11% Notes in April and June 2007. Because we are contractually precluded from issuing additional 11% Notes, and substantially all of our assets are pledged to our existing lenders, our ability to fund continued operations through the issuance of debt is further restricted. Interest on our outstanding debt will accrue and be added to the principal balance during the first year. Thereafter, we will have the option to pay interest in cash, or have the interest accrue and be added to the principal balance and issue interest accrual warrants. Making interest payments in cash would reduce the cash available for other purposes; however, allowing such payments to accrue would prompt further dilution to shareholders through the issuance of interest accrual warrants.

Our capital requirements may vary depending upon the timing and the success of the implementation of our business plan, regulatory, technological and competitive developments, or if:

- significant sales of our products are not achieved or are delayed;
- operating losses exceed our expectations;
- our manufacturing and development costs or estimates prove to be inaccurate; or
- we acquire, license or develop additional technologies.

We cannot, however, assure you that our efforts to implement our business strategy will:

- be attainable;
- be profitable;
- reduce our reliance upon financing transactions; or
- enable us to continue operations.

## **Commitments and Contingent Liabilities**

*Secured Promissory Notes.* On April 20, 2007 and June 15, 2007, we entered into Secured Note Purchase Agreements for the issuance and sale of an aggregate of \$12,500,000 in 11% Notes. The 11% Notes, and accrued interest, are due and payable three years following the respective date of issuance of each note.

*Related Party Lease Obligation.* Simultaneous with the sale of our land and building in April 2003 to PKM, an entity controlled by Paul K. Miller, we entered into a lease with PKM to lease back the building and a portion of the land. Mr. Miller is one of our directors and one of the largest beneficial owners of our securities. The lease has a ten-year initial term with options for us to extend the lease up to ten additional years. Under certain conditions, we also have an option to purchase the building at the end of the initial ten-year term at the fair value at that time. We also are responsible for maintenance and operating costs, utilities and real estate taxes under the lease. In addition, the lease makes it our responsibility for any construction costs deemed necessary or required by the landlord in connection with the relocation or removal of the private septic system and/or drain field as well as costs associated with responding to any release of hazardous materials at the property.

*LightWave Technology Purchase Agreement.* In August 2003, we entered into a technology purchase agreement with LightWave and its principals, one of whom became an employee of our company. The technology purchase agreement related to our acquisition of LightWave's interests in technology consisting of a catheter/probe containing elements of optical fiber, coolant passages and other features for the purpose of delivering laser energy to the epicardial surface of the heart for treatment of AF. We agreed to use our reasonable commercial efforts to commercialize the technology within three years following the acquisition of the technology from LightWave. LightWave and two of its principals have agreed to certain noncompetition obligations, nondisclosure obligations, and certain obligations to assign new developments or inventions relating to the acquired technology to our company.

We paid LightWave an initial payment consisting of 1,500 shares of our common stock, \$10,000 upon closing and an additional \$30,000 to LightWave in installments in fiscal year 2004 and 2005. An additional \$125,000 was paid to LightWave in January 2006. We will be obligated to pay an additional \$385,000 within 45 days following our achievement of \$1,500,000 of cumulative gross sales of disposable products. In addition, at closing, during fiscal year 2004, we issued to LightWave a warrant for the purchase of 2,500 shares of our common stock at \$14.60 per share and, during fiscal year 2005, a warrant for the purchase of 2,500 shares of our common stock at \$14.60 per share upon receiving an FDA 510(k) clearance. During fiscal year 2007, we issued to LightWave a warrant for the purchase of 2,500 shares of our common stock at \$14.60 per share due to the receipt of a U.S. utility patent covering the product and a warrant for the purchase of 2,500 shares of our common stock at \$14.60 per share due to the first commercial sale of our ATRILAZE System single-use device.

Following November 29, 2005, the date of the first commercial sale of our ATRILAZE System single-use device, we agreed to make payments to LightWave for ten years equal to 6% of net sales of such product in countries in which we have patent protection, including the United States, and 4% of net sales of such product in countries in which there is no patent protection. These payments are due within 60 days following each fiscal quarter.

Commencing with the second year following the first commercial sale on November 29, 2005, we agreed to make minimum annual payments as follows:

<b>Annual Period Ending</b>	<b>Minimum Annual Payment</b>
November 29, 2007	\$ 50,000
November 29, 2008	\$ 75,000
November 29, 2009	\$ 100,000
November 29, 2010	\$ 200,000
November 29, 2011	\$ 300,000
November 29, 2012	\$ 350,000
November 29, 2013	\$ 350,000
November 29, 2014	\$ 400,000
November 29, 2015	\$ 500,000
Total minimum payments	<u>\$ 2,325,000</u>



If we fail in any year to pay the minimum annual payment, we may be obligated to grant LightWave a nonexclusive right to use the technology acquired from LightWave, or pay LightWave the difference between the payment actually made and the minimum payment due for a given year. If we discontinue the development or marketing of the product, we would have no further obligation to make the minimum annual payments due to LightWave. However, in such event, LightWave may, upon written request, obtain from us a license to use the intellectual property or, at our option, we may assign our rights in the intellectual property to LightWave.

*Operating Lease.* We have an operating lease for a certain piece of office equipment, which expires in fiscal year 2011. At the end of the initial lease term, we have the option to purchase the equipment at fair market value, renew the lease, or return the equipment.

*Product Liability Contingency.* In March 2005, we became aware that a patient who was utilizing one of our heart valves had died. We have not received any claims related to this matter but believe that any such claim would be covered by our existing liability insurance. Based upon the expectation that insurance would cover the cost of any claims after our payment of the deductible, we do not expect the ultimate resolution of this matter to have a material effect on our business, financial condition, operating results or cash flows.

*Severance Contingencies.* As of October 31, 2007, employment agreements with five officers contain a provision for payments of up to twelve months of severance if the employment of the officer is terminated without cause by us or for good reason by the officer as defined in the agreements.

*Severance Contract.* On June 28, 2007, we entered into an amendment to the restated Executive Employment Agreement with Eapen Chacko, then our Vice President, Finance and Chief Financial Officer, to reflect the mutual decision reached concerning Mr. Chacko's departure from our company. Pursuant to the amendment, Mr. Chacko's employment terminated on September 15, 2007. In connection with Mr. Chacko's departure, we paid Mr. Chacko a lump sum severance payment of \$100,000 on the date of termination. If Mr. Chacko is not reemployed or serving as an independent contractor, Mr. Chacko may be eligible for six monthly installments of base salary of \$16,667 beginning March 2008 and such payments will cease on the earlier of: 1) the date Mr. Chacko is reemployed or serves as an independent contractor; or 2) September 2008. In addition to these severance payments, we have agreed to pay or reimburse Mr. Chacko for medical (COBRA) benefits as set forth in the Executive Employment Agreement.

The following table summarizes our contractual obligations as of October 31, 2007, excluding the product liability contingency and the severance contingencies, as described above:

Summary of Contractual Obligations	TOTAL	Payments Due By Period		
		Less than One Year	Two to Three Years	Four or More Years
Secured Promissory Notes (1)(2)	\$ 17,238,030	\$ –	\$ 17,238,030	\$ –
Related Party Lease Obligation (2)(3)	2,266,158	438,734	849,754	977,670
LightWave Minimum Payments (4)	2,325,000	50,000	175,000	2,100,000
Operating Lease (3)	14,285	5,530	8,755	–
Severance Contract (5)	100,000	100,000	–	–
Total Contractual Obligations	<u>\$ 21,943,473</u>	<u>\$ 594,264</u>	<u>\$ 18,271,539</u>	<u>\$ 3,077,670</u>

- (1) Future payment amount assumes we elect to exercise our option to allow interest payable to accrue and be added to the principal balance of the 11% Notes.
- (2) Future payments include interest.
- (3) Excludes executory costs, such as taxes, repairs, and maintenance.
- (4) Excludes an additional \$385,000 payable within 45 days following our achievement of \$1,500,000 of cumulative gross sales.
- (5) Future payment amount assumes Mr. Chacko is not reemployed or serving as an independent contractor prior to September 15, 2008.

## **Off-Balance Sheet Arrangements**

Other than as set forth above in “Commitments and Contingent Liabilities,” we do not have any off-balance sheet arrangements that have or are reasonably likely to have a material current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

## **Qualitative and Quantitative Disclosures about Market Risk**

We are focusing substantially all of our resources on the development and introduction of our surgical ablation systems. For the foreseeable future, we expect that sales will be in the U.S. denominated in U.S. dollars. Our interest income and expenses are sensitive to changes in the general level of U.S. interest rates, particularly since our investments are in short-term instruments. At October 31, 2007 and April 30, 2007, we held a majority of our cash in a money market account. Based on the current nature and levels of our investments we believe that we currently have no material market risk exposure. Our general investing policy is to limit market and credit risk and the risk of principal loss. All liquid investments with maturities of three months or less are considered to be cash equivalents.

## **ITEM 3 CONTROLS AND PROCEDURES**

### **Evaluation of Disclosure Controls and Procedures**

We maintain 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”)) that are designed to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized, and reported, within the time periods specified in the U.S. Securities and Exchange Commission’s

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26

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rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our Company’s disclosure controls and procedures as of the end of the period covered in this Quarterly Report on Form 10-QSB. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of the end of the period covered in this Quarterly Report on Form 10-QSB.

### **Changes in Internal Control Over Financial Reporting**

There was no change in our internal control over financial reporting that occurred during our quarter ended October 31, 2007 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

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27

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## **PART II**

### **OTHER INFORMATION**

## **ITEM 1 LEGAL PROCEEDINGS**

On October 19, 2007, we entered into a settlement agreement with J Giordano Securities LLC (d/b/a J Giordano Securities Group) (“JGSG”) pursuant to which we settled and resolved all disputes, claims and matters in controversy between our company and JGSG in exchange for our payment to JGSG of \$750,000 in cash. Without admitting any liability or wrongdoing, JGSG and our company mutually released each other from any and all claims, demands, and causes of action, suits, debts or liabilities of any kind which were or could have been asserted in the federal action or arbitration.

JGSG had filed a complaint for breach of an engagement agreement against us in the United States District Court for the District of Connecticut, alleging that JGSG was entitled to additional compensation pursuant to certain financing activities by us that occurred in December 2005, January 2006, and October 2006, as well as certain compensation relating to registration of the shares underlying the warrants issued to JGSG as compensation in connection with the April 2005 private placement of our securities in which JGSG was a placement agent. We had moved to dismiss or stay the federal action and to compel arbitration before the National Association of Securities Dealers, pursuant to which the federal action was stayed. JGSG then filed a statement of claim and we filed a counterclaim in the arbitration, alleging breach of the engagement agreement and fraud in the inducement. JGSG then filed an amended statement of claim in the arbitration, pursuant to which JGSG claimed it was entitled to alleged damages of \$3,346,565 plus reimbursement for reasonable expenses, interest, costs and attorneys’ fees. In order to avoid the costs, uncertainty, and inconvenience associated with adversary proceedings, we entered into the above-referenced settlement agreement with JGSG, effective October 19, 2007.

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

The Company’s 2007 Annual Meeting of Shareholders was held on October 11, 2007. Five proposals were submitted to shareholders for approval, each of which passed with voting results as follows:

(1) To elect eight directors for the ensuing year and until their successors shall be elected and duly qualified. Each of the nominees for directors, as listed in the proxy statement, was elected with the number of votes set forth below:

<u>Name</u>	<u>For</u>	<u>Withhold</u>
Susan L. Critzer	6,914,476	73,016
Marc P. Flores	6,913,768	73,724
David A. Chazanovitz	6,922,442	65,050
Richard J. Faleschini	6,922,442	65,050
Larry G. Haimovitch	6,922,442	65,050
David B. Kaysen	6,922,442	65,050
Paul K. Miller	6,914,603	72,889
J. Robert Paulson, Jr.	6,914,476	73,016

(2) To approve the amendment of our Restated Articles of Incorporation.

<u>For</u>	<u>Against</u>	<u>Abstain</u>	<u>Broker Non-Vote</u>
5,993,052	931,757	62,683	0

(3) To approve the amendment to our Amended and Restated 2001 Equity Incentive Plan.

<u>For</u>	<u>Against</u>	<u>Abstain</u>	<u>Broker Non-Vote</u>
3,881,075	1,128,660	12,610	0

(4) To approve the amendment to our 2005 Director Stock Option Plan.

<u>For</u>	<u>Against</u>	<u>Abstain</u>	<u>Broker Non-Vote</u>
3,789,269	1,216,366	16,710	0

(5) To ratify the appointment of Lurie Besikof Lapidus & Company, LLP as our independent registered public accounting firm for the fiscal year ending April 30, 2008.

<u>For</u>	<u>Against</u>	<u>Abstain</u>	<u>Broker Non-Vote</u>
6,923,809	1,000	62,683	0

## ITEM 5 OTHER INFORMATION

On December 5, 2007, the Board of Directors of our company approved an amendment and restatement of the company's Bylaws. In particular, the following changes were made: (1) Section 5.4 was added to allow the company to issue uncertificated shares of stock in accordance with SEC regulations which allow for securities to be listed on a Direct Registration System, (2) Section 2.6 was amended to increase the minimum notice generally applicable to regular and special meetings of shareholders from five days before the meeting to ten days before the meeting, (3) references to the name of the company were updated from "CV Dynamics" to "MedicalCV, Inc." and (4) a reference to the name of a Board committee was updated from "Nominating Committee" to "Corporate Governance and Nominating Committee."

## ITEM 6 EXHIBITS

See "Index to Exhibits."

## SIGNATURES

In accordance with the requirements of the Exchange Act, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

MedicalCV, Inc.

Date: December 7, 2007

By /s/ Marc P. Flores  
Marc P. Flores  
President and Chief Executive Officer

By /s/ Michael A. Brodeur  
Michael A. Brodeur  
Vice President, Finance and Chief Financial Officer

## INDEX TO EXHIBITS

Exhibit Number	Description
3.1	Restated Articles of Incorporation of the Registrant, as Amended (incorporated by reference to our Current Report on Form 8-K, filed on October 11, 2007 (File No. 000-33295)).
3.2	Bylaws of the Registrant, as Amended and Restated.
4.1	Reference is made to Exhibits 3.1 and 3.2.
4.2	Specimen common stock certificate (incorporated by reference to Amendment No. 1 to our Registration Statement on Form SB-2, filed on June 6, 2006 (File No. 333-134315)).
4.3	Secured Note Purchase Agreement between the Registrant and Whitebox Ready Ltd., dated April 20, 2007, including form of Secured Promissory Note, forms of Closing Warrant and Interest Warrant, and form of Security Agreement and UCC Financing Statement (incorporated by reference to our Current Report on Form 8-K filed on April 20, 2007 (File No. 000-33295)).
4.4	Amendment to Secured Note Purchase Agreement between the Registrant and Whitebox Ready Ltd., dated June 15, 2007 (incorporated by reference to our Current Report on Form 8-K, filed on June 15, 2007 (File No. 000-33295)).
4.5	Amendment to Warrant Agreement between the Registrant and Whitebox Ready Ltd., dated June 15, 2007 (incorporated by reference to our Current Report on Form 8-K filed on June 15, 2007 (File No. 000-33295)).
4.6	Secured Note Purchase Agreement between the Registrant and Whitebox Ready Ltd., Craig-Hallum Partners LP, ASA Opportunity Fund, L.P., Burguete Investment Partnership LP, Potomac Capital Partners LP, Potomac Capital International Ltd. and Pleaides Investment Partners-R LP, dated June 15, 2007, including form of Secured Promissory Note, forms of Closing Warrant and Interest Warrant, and form of Security Agreement and UCC Financing Statement (incorporated by reference to our Current Report on Form 8-K filed on June 15, 2007 (File No. 000-33295)).
10.1	Non-Employee Director Compensation Policy, as amended and restated on August 16, 2007 (incorporated by reference to our Current Report on Form 8-K filed on August 21, 2007 (File No. 000-33295)).
10.2	Management Incentive Plan, adopted August 16, 2007 (incorporated by reference to our Current Report on Form 8-K, filed on August 21, 2007 (File No. 000-33295)).
10.3	Executive Employment Agreement, effective September 17, 2007, by and between the Registrant and Michael A. Brodeur (incorporated by reference to our Current Report on Form 8-K, filed on September 11, 2007 (File No. 000-33295)).
10.4	Amended and Restated 2001 Equity Incentive Plan (incorporated by reference to our Definitive Schedule 14A (Proxy Statement), filed on September 11, 2007 (File No. 000-33295)).
10.5	Amended and Restated 2005 Director Stock Option Plan (incorporated by reference to our Definitive Schedule 14A (Proxy Statement), filed on September 11, 2007 (File No. 000-33295)).
10.6	Settlement Agreement between the Registrant and J Giordano Securities LLC d/b/a J Giordano Securities Group, dated October 19, 2007 (incorporated by reference to our Current Report on Form 8-K, filed on October 22, 2007 (File No. 000-33295)).

- 31.1 Chief Executive Officer Certification pursuant to Exchange Act Rule 13a-14(a).
- 31.2 Chief Financial Officer Certification pursuant to Exchange Act Rule 13a-14(a).
- 32.1 Chief Executive Officer Certification pursuant to 18 U.S.C. Section 1350.
- 32.2 Chief Financial Officer Certification pursuant to 18 U.S.C. Section 1350.

AMENDED AND RESTATED BYLAWS

OF

MEDICALCV, INC.

ARTICLE 1

OFFICES, CORPORATE SEAL  
AND SHAREHOLDER CONTROL AGREEMENT

SECTION 1.1 REGISTERED AND OTHER OFFICES. The registered office of the Corporation in Minnesota shall be that set forth in the Articles of Incorporation or in the most recent amendment of the Articles of Incorporation or statement of the Board of Directors filed with the Secretary of State of Minnesota changing the registered office in the manner prescribed by law. The Corporation may have such other offices, within or without the State of Minnesota, as the Board of Directors shall, from time to time, determine.

SECTION 1.2 CORPORATE SEAL. If so directed by the Board of Directors by resolution, the Corporation may use a corporate seal. The failure to use such seal, however, shall not affect the validity of any documents executed on behalf of the Corporation. The seal need only include the word “seal”, but it may also include, at the discretion of the Board, such additional wording as is permitted by law.

SECTION 1.3 SHAREHOLDER CONTROL OR VOTING AGREEMENT. In the event of any conflict or inconsistency between these Bylaws, or any amendment thereto, and any shareholder control or voting agreement, whenever adopted, such shareholder control or voting agreement shall govern.

ARTICLE 2

MEETINGS OF SHAREHOLDERS

SECTION 2.1 TIME AND PLACE OF MEETINGS. Regular or special meetings of the shareholders, if any, shall be held on the date and at the time and place fixed by the Chief Executive Officer, the Chairman of the Board, or the Board, except that a regular or special meeting called by, or at the demand of a shareholder or shareholders, pursuant to Minnesota Statutes, Section 302A.431, Subd. 2, shall be held in the county where the principal executive office is located.

SECTION 2.2 REGULAR MEETINGS. At any regular meeting of the shareholders there shall be an election of qualified successors for directors who serve for an indefinite term or whose terms have expired or are due to expire within six months after the date of the meeting. Any business appropriate for action by the shareholders may be transacted at a regular meeting. No meeting shall be considered a regular meeting unless specifically designated as such in the notice of meeting or unless all the shareholders are present in person or by proxy and none of

them objects to such designation. Regular meetings may be held no more frequently than once per year.

**SECTION 2.3 DEMAND BY SHAREHOLDERS.** Regular or special meetings may be demanded by a shareholder or shareholders, pursuant to the provisions of Minnesota Statutes, Sections 302A.431, Subd. 2, and 302A.433, Subd. 2, respectively. If a regular meeting of shareholders has not been held during the immediately preceding fifteen (15) months, a shareholder or shareholders holding three (3) percent or more of the voting power of all shares entitled to vote may demand a regular meeting of shareholders by written notice of demand given to the Chief Executive Officer or the Chief Financial Officer of the Corporation. A shareholder or shareholders holding ten percent or more of the voting power of all shares entitled to vote may demand a special meeting of shareholders by written notice of demand given to the Chief Executive Officer or Chief Financial Officer of the Corporation and containing the purposes of the meeting. Within thirty (30) days after receipt of the demand by one of those officers, the Board shall cause a special meeting of shareholders to be called and held on notice no later than ninety (90) days after receipt of the demand, all at the expense of the Corporation. If the Board fails to cause a special meeting to be called and held as required by this subdivision, the shareholder or shareholders making the demand may call the meeting by giving notice as required by Minnesota Statutes, Section 302A.435, all at the expense of the Corporation. The business transacted at a special meeting is limited to the purposes stated in the notice of the meeting. Any business transacted at a special meeting that is not included in those stated purposes is voidable by or on behalf of the Corporation, unless all of the shareholders have waived notice of the meeting in accordance with Minnesota Statutes, Section 302A.435.

**SECTION 2.4 QUORUM; ADJOURNED MEETINGS.** The holders of a majority of the voting power of the shares entitled to vote at a meeting constitute a quorum for the transaction of business; said holders may be present at the meeting either in person or by proxy. If a quorum is present when a duly called or held meeting is convened, the shareholders present may continue to transact business until adjournment, even though withdrawal of shareholders originally present leaves less than the proportion or number otherwise required for a quorum. In case a quorum shall not be present in person or by proxy at a meeting, those present in person or by proxy may adjourn to such day as they shall, by majority vote, agree upon, and a notice of such adjournment shall be mailed to each shareholder entitled to vote at least five (5) days before such adjourned meeting. If a quorum is present in person or by proxy, a meeting may be adjourned from time to time without notice, other than announcement at the meeting. At adjourned meetings at which a quorum is present in person or by proxy, any business may be transacted at the meeting as originally noticed.

**SECTION 2.5 VOTING.** At each meeting of the shareholders, every shareholder having the right to vote shall be entitled to vote either in person or by proxy. Unless otherwise provided by the Articles of Incorporation or a resolution of the Board of Directors filed with the Secretary of State, each shareholder shall have one vote for each share held. Upon demand of any shareholder, the vote upon any question before the meeting shall be by ballot.

**SECTION 2.6 NOTICE OF MEETINGS.** Notice of all meetings of shareholders shall be given to every holder of voting shares, except where the meeting is an adjourned meeting and the

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date, time and place of the meeting were announced at the time of adjournment. Notice of regular meetings of shareholders shall be given at least ten (10), but not more than sixty (60) days before the date of the meeting. Notice of special meetings of shareholders may be given upon not less than ten (10) nor more than sixty (60) days, except that written notice of a meeting at which an agreement of merger is to be considered shall be given to all shareholders, whether entitled to vote or not, at least fourteen (14) days prior thereto. Every notice of any special meeting shall state the purpose or purposes for which the meeting has been called, and the business transacted at all special meetings shall be confined to the purpose stated in the call, unless all of the shareholders are present in person or by proxy and none of them objects to consideration of a particular item of business.

**SECTION 2.7 WAIVER OF NOTICE.** A shareholder may waive notice of any meeting of shareholders. A waiver of notice by a shareholder entitled to notice is effective whether given before, at or after the meeting and whether given in writing, orally or by attendance.

**SECTION 2.8 AUTHORIZATION WITHOUT A MEETING.** Any action required or permitted to be taken at a meeting of the shareholders may be taken without a meeting as authorized by law.

SECTION 2.9 RECORD DATE. The Board of Directors may fix a time, not exceeding sixty (60) days preceding the date of any meeting of shareholders, as a record date for the determination of the shareholders entitled to notice of and to vote at such meeting, notwithstanding any transfer of shares on the books of the Corporation after any record date so fixed. The Board of Directors may close the books of the Corporation against the transfer of shares during the whole or any part of such period. If the Board of Directors fails to fix a record date for the determination of the shareholders entitled to notice of and to vote at any meeting of the shareholders, the record date shall be the twentieth (20th) day preceding the date of such meeting.

### ARTICLE 3 DIRECTORS

SECTION 3.1 GENERAL. The business and affairs of the Corporation shall be managed by or shall be under the direction of the Board of Directors.

SECTION 3.2 NUMBER, QUALIFICATIONS AND TERM OF OFFICE. The number of directors shall be fixed from time to time exclusively pursuant to a resolution adopted by a majority of the Board of Directors, but shall consist of not less than five (5) nor more than nine (9) directors. Directors need not be shareholders. Each of the directors shall hold office until the regular meeting of the shareholders next held after his election, until his successor shall have been elected and shall qualify, or until he shall resign or shall have been removed as hereinafter provided. No person (other than a person nominated by or on behalf of the Board) shall be eligible for election as a director at any annual or special meeting of shareholders unless a written request that his or her name be placed in nomination is received from a shareholder of record by the Secretary of the Corporation not less than sixty (60) days prior to the date fixed for the meeting, together with the written consent of such person to serve as a director.

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SECTION 3.3 BOARD MEETINGS; PLACE AND NOTICE. Meetings of the Board of Directors may be held from time to time at any place within or without the State of Minnesota that the Board of Directors may designate. In the absence of designation by the Board of Directors, Board meetings shall be held at the principal executive office of the Corporation, except as may be otherwise unanimously agreed orally or in writing or by attendance. Special or regular meetings of the Board of Directors may be called by the Chairman of the Board, the Chief Executive Officer, or the Chief Financial Officer, upon not less than twenty-four (24) hours notice. Any director may call a Board meeting by giving not less than five (5) business days notice to all directors of the date and time of the meeting. The notice need not state the purpose of the meeting. Notice may be given by mail, telephone, telegram, telecopy or by personal service. If the meeting schedule is adopted by the Board, or if the date and time of a Board meeting has been announced at a previous meeting, no notice is required.

SECTION 3.4 WAIVER OF NOTICE. A director may waive notice of a meeting of the Board. A waiver of notice by a director is effective, whether given before, at or after the meeting and whether given in writing, orally or by attendance.

SECTION 3.5 QUORUM. A majority of the directors currently holding office is a quorum for the transaction of business.

SECTION 3.6 VACANCIES. Vacancies on the Board resulting from the death, resignation or removal of a director, or by an increase in the number of directors, may be filled by the affirmative vote of a majority of the remaining directors, even though less than a quorum. Each director elected under this Section to fill a vacancy holds office until a qualified successor is elected by the shareholders at the next regular or special meeting of the shareholders.

SECTION 3.7 COMMITTEES. The Board may by resolution establish committees in the manner provided by law. Committee members need not be directors. The following committees, if established by the Board, shall have the responsibilities set forth respectively, subject to enlargement or restriction of such responsibilities, as the Board, by resolution, shall determine:

#### AUDIT COMMITTEE

Recommending the appointment of independent auditors.



Consulting with the independent auditors on the plan of the audit.

Reviewing, in consultation with the independent auditors, their report of audit or proposed report of audit and the accompanying management letter.

Consulting with the independent auditors on the adequacy of internal controls.

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#### COMPENSATION COMMITTEE

Strategically, considers how the achievement of the overall goals and objectives of the corporation can be aided through adoption of an appropriate compensation philosophy and effective compensation program elements.

Administratively, reviews salary progression, bonus allocations, stock awards and the awards of supplemental benefits and perquisites for key executives against the compensation objectives of the company, given its overall performance.

Approves the compensation arrangements for the corporation's senior management; also reviews and approves the adoption of any compensation plans in which officers and directors are eligible to participate.

#### CORPORATE GOVERNANCE AND NOMINATING COMMITTEE

Searches for and screens candidates for Board vacancies. The committee considers broader issues of composition and organization of the Board, including committee assignments and individual Board membership.

Evaluates the Board itself and its members and reviews the company's management succession planning.

#### EXECUTIVE COMMITTEE

Serves as a key link between the full Board and management.

Is usually granted broad powers to assure that important matters which arise between Board meetings, and cannot wait for the next scheduled meeting, receive timely attention.

Serves as a sounding board for general management problems on matters that affect the corporation as a whole.

#### FINANCE COMMITTEE

Stays informed on a timely basis about the company's financial status.

Evaluates the financial information it receives and develops conclusions as to any plan of action needed.

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Advises corporate management and the full board in financial matters. In some cases, the Finance Committee has the authority to act for the full Board between meetings, but generally it is not empowered to act on its own.

#### PENSION REVIEW COMMITTEE

Reviews and approves corporate pension policy, formal pension plans and amendments.

Reviews actuarial recommendations and makes recommendations regarding the corporation's contribution to the pension plans.

Selects asset managers and provides guidance on the specific investment philosophy to be applied to the ongoing management of the funds.

Monitors the performance of the corporate pension funds.

Monitors government actions with respect to pension governance and reporting requirements.

#### STRATEGIC PLANNING (CORPORATE OBJECTIVES)

Ensures the proper future direction of the corporation by defining the basic corporate and business unit long-term strategic goals vital to the mission of creating shareholder value for the company.

Develops strategic plans as to how the company will achieve these objectives.

Monitors the progress of the company in achieving its long-term strategic goals.

#### STOCK OPTION

Assures that the levels and forms of the executive long-term incentive compensation programs are adequate to motivate key management to achieve the corporate long-term strategic goals.

Involved in the design and approval of the executive long-term incentive compensation programs.

Administers the timing and determination of the size of

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grants; also interprets plan provisions with regard to setting performance goals and executing plan award agreements with individuals.

#### INVESTMENTS

Reviews and approves all major allocations of corporate resources.

Evaluates the financial implications of all merger, acquisition and divestiture activities.

SECTION 3.8 ABSENT DIRECTORS. A director may give advance written consent or opposition to a proposal to be acted on at a Board meeting. If the director is not present at the meeting, consent or opposition to a proposal does not constitute presence for purposes of determining the existence of a quorum, but consent or opposition shall be counted as a vote in favor of, or against, the proposal and shall be entered in the minutes or other record of action of the meeting if the proposal acted on at the meeting is substantially the same or has substantially the same effect as the proposal which the director has consented or objected.

#### ARTICLE 4 OFFICERS

SECTION 4.1 NUMBER. The officers of the Corporation shall consist of a Chief Executive Officer and a Chief Financial Officer. The Chief Executive Officer shall preside at all meetings of the shareholders and directors and shall have such other duties as may be

prescribed from time to time by the Board of Directors. The Chief Executive Officer shall also see that all orders and resolutions of the Board are carried into effect. The Chief Executive Officer and Chief Financial Officer shall have such other duties as are prescribed by statute. The Board may elect or appoint any other officers it deems necessary for the operation and management of the Corporation, each of whom shall have the powers, rights, duties, responsibilities and terms of office determined by the Board from time to time. Any number of offices or functions of those offices may be held or exercised by the same person. If specific persons have not been elected as President or Secretary, the Chief Executive Officer may execute instruments or documents in those capacities. If a specific person has not been elected to office of Treasurer, the Chief Financial Officer of the Corporation may sign instruments or documents in that capacity.

SECTION 4.2 VICE PRESIDENT. Each Vice President, if one or more are elected, shall have such powers and shall perform such duties as may be specified in the Bylaws or prescribed by the Board of Directors or by the Chairman of the Board or by the Chief Executive Officer. In the event of the absence or disability of the Chief Executive Officer, Vice Presidents shall succeed to his power and duties in the order designated by the Board of Directors.

SECTION 4.3 SECRETARY. The Secretary, if one is elected, shall be secretary of and shall attend all meetings of the shareholders and Board of Directors and shall record all proceedings of such meetings in the minute book of the Corporation. He shall give proper notice of meetings of shareholders and directors. He shall perform such other duties as may, from time

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to time, be prescribed by the Board of Directors, by the Chairman of the Board, or by the Chief Executive Officer.

SECTION 4.4 ELECTION AND TERM OF OFFICE. The Board of Directors shall from time to time elect a Chairman of the Board of Directors, Chief Executive Officer and Chief Financial Officer and any other officers or agents the Board deems necessary. Such officers shall hold office until they are removed or their successors are elected and qualified.

SECTION 4.5 DELEGATION OF AUTHORITY. An officer elected or appointed by the Board may delegate some or all of the duties or powers of his office to other persons, provided that such delegation is in writing.

SECTION 4.6 COMPENSATION OF OFFICERS. An officer shall be entitled only to such compensation as shall be established by written contract or agreement duly approved by or on behalf of the Corporation, or established or approved by resolution of the Board of Directors. Absent such written contract, agreement or resolution of the Board of Directors, no officer shall have a cause of action against the Corporation to recover any amount due or alleged to be due as compensation for services in his or her capacity as an officer of the Corporation.

## ARTICLE 5 SHARES AND THEIR TRANSFER

SECTION 5.1 CERTIFICATES FOR SHARES. Every shareholder of this Corporation shall be entitled to a certificate, to be in such form as prescribed by law and adopted by the Board of Directors, certifying the number of shares of the Corporation owned by him. The certificates shall be numbered in the order in which they are issued and shall be signed by the Chief Executive Officer and Secretary of the Corporation; provided, however, that when the certificate is signed by a transfer agent or registrar, the signatures of any of such officers upon the certificate may be facsimiles, engraved or printed thereon, if authorized by the Board of Directors. Such certificate shall also have typed or printed thereon such legend as may be required by any shareholder control agreement. Every certificate surrendered to the Corporation for exchange or transfer shall be cancelled, and no new certificate or certificates shall be issued in exchange for any existing certificate until such existing certificate shall have been so cancelled.

SECTION 5.2 TRANSFER OF SHARES. Transfer of shares on the books of the Corporation may be authorized only by the shareholder named in the certificate, or the shareholder's legal representative, or the shareholder's duly authorized attorney in fact, and upon surrender of the certificate or the certificates for such shares. The Corporation may treat, as the absolute owner of shares of the Corporation, the person or persons in whose name or names the shares are registered on the books of the Corporation.

SECTION 5.3 LOST CERTIFICATES. Any shareholder claiming that a certificate for shares has been lost, destroyed or stolen shall make an affidavit of that fact in such form as the Board of Directors shall require and shall, if the Board of Directors so requires, give the Corporation a sufficient indemnity bond, in form, in an amount, and with one or more sureties

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satisfactory to the Board of Directors, to indemnify the Corporation against any claims which may be made against it on account of the reissue of such certificate. A new certificate shall then be issued to said shareholder for the same number of shares as the one alleged to have been destroyed, lost or stolen.

SECTION 5.4 DIRECT PARTICIPATION. Notwithstanding any other provision in these Bylaws, some or all of any or all classes and series of shares of the Company may be uncertificated. The Company may adopt a system of issuance, recordation and transfer of its shares by electronic or other means not involving any issuance of certificates, including provisions for notice to purchasers in substitution for any required statements on certificates, and as may be required by applicable corporate securities laws, which system has been approved by the United States Securities and Exchange Commission. Any system so adopted shall not become effective as to issued and outstanding certificated securities until the certificates therefor have been surrendered to the Company.

## ARTICLE 6 INDEMNIFICATION

SECTION 6.1 INDEMNIFICATION. The Corporation shall indemnify, in accordance with the terms and conditions of Minnesota Statutes, Section 302A.521, the following persons: (a) officers and former officers; (b) directors and former directors; (c) members and former members of committees appointed or designated by the Board of Directors; and (d) employees and former employees of the Corporation. The Corporation shall not be obligated to indemnify any other person or entity, except to the extent such obligation shall be specifically approved by resolution of the Board of Directors. This Section 6.1 is for the sole and exclusive benefit of the persons designated herein and no person, firm or entity shall have any rights under this Section by way of assignment, subrogation or otherwise, and whether voluntarily, involuntarily or by operation of law.

## ARTICLE 7 MISCELLANEOUS

SECTION 7.1 GENDER REFERENCES. All references in these Bylaws to a party in the masculine shall include the feminine and neuter.

SECTION 7.2 PLURALS. All references in the plural shall, where appropriate, include the singular and all references in the singular shall, where appropriate, be deemed to include the plural.

## CERTIFICATION

I, Marc P. Flores do hereby certify that I am the duly elected Chief Executive Officer of MedicalCV, Inc., a corporation organized under the laws of the State of Minnesota, and that the foregoing is a true and correct copy of the Amended and Restated By-Laws adopted by the Board of Directors of said corporation effective December 5, 2007.

/s/ Marc P. Flores  
Marc P. Flores

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**EXHIBIT 31.1**

*CHIEF EXECUTIVE OFFICER CERTIFICATION PURSUANT TO EXCHANGE ACT RULE 13a-14(a)*

I, Marc P. Flores, certify that:

1. I have reviewed this quarterly report on Form 10-QSB for the quarter ended October 31, 2007, of MedicalCV, 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 report, fairly present in all material respects the financial condition, results of operations and cash flows of the small business issuer as of, and for, the periods presented in this report;
4. The small business issuer'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 small business issuer 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 small business issuer, 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 small business issuer'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 small business issuer's internal control over financial reporting that occurred during the small business issuer's most recent fiscal quarter (the small business issuer's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the small business issuer's internal control over financial reporting; and
5. The small business issuer's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the small business issuer's auditors and the audit committee of the small business issuer'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 small business issuer'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 small business issuer's internal control over financial reporting.

Dated: December 7, 2007

By: /s/ Marc P. Flores

Marc P. Flores

President and Chief Executive Officer

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**EXHIBIT 31.2**

*CHIEF FINANCIAL OFFICER CERTIFICATION PURSUANT TO EXCHANGE ACT RULE 13a-14(a)*

I, Michael Brodeur, certify that:

1. I have reviewed this quarterly report on Form 10-QSB for the quarter ended October 31, 2007, of MedicalCV, 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 report, fairly present in all material respects the financial condition, results of operations and cash flows of the small business issuer as of, and for, the periods presented in this report;
4. The small business issuer'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 small business issuer 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 small business issuer, 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 small business issuer'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 small business issuer's internal control over financial reporting that occurred during the small business issuer's most recent fiscal quarter (the small business issuer's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the small business issuer's internal control over financial reporting; and
5. The small business issuer's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the small business issuer's auditors and the audit committee of the small business issuer'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 small business issuer'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 small business issuer's internal control over financial reporting.

Dated: December 7, 2007

By: /s/ Michael A. Brodeur

Michael A. Brodeur  
Vice President, Finance and  
Chief Financial Officer

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**EXHIBIT 32.1**

*CHIEF EXECUTIVE OFFICER CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350*

In connection with the Quarterly Report of MedicalCV, Inc. (the "Company") on Form 10-QSB for the quarter ended October 31, 2007, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Marc P. Flores, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

Dated: December 7, 2007

By: /s/ Marc P. Flores  
Marc P. Flores  
President and Chief Executive Officer

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**EXHIBIT 32.2**

*CHIEF FINANCIAL OFFICER CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350*

In connection with the Quarterly Report of MedicalCV, Inc. (the "Company") on Form 10-QSB for the quarter ended October 31, 2007, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Michael Brodeur, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

Dated: December 7, 2007

By: /s/ Michael A. Brodeur  
Michael A. Brodeur  
Vice President, Finance and  
Chief Financial Officer

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