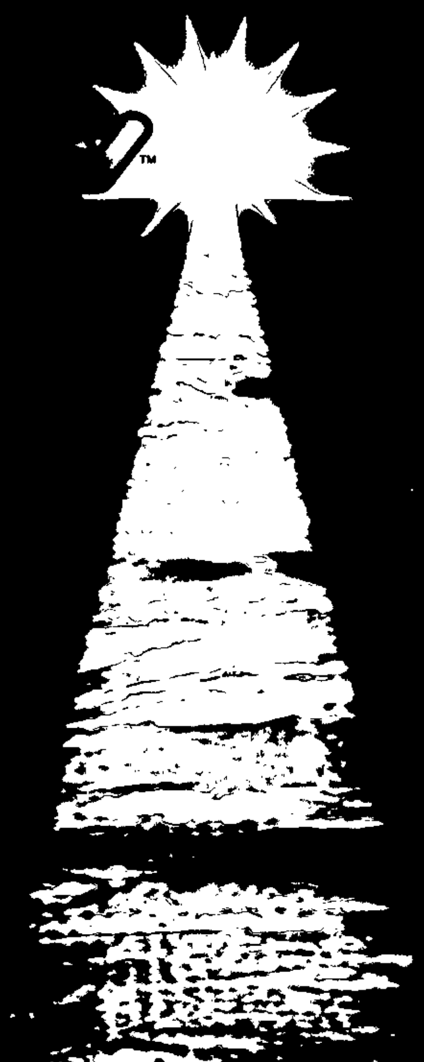

A N N U A L R

SOLAR™
Surgical Ablation System

ATRILAZE™
Surgical Ablation System

Dear Shareholder,

Fiscal year 2007 was a year of significant progress in executing the plan that has been in place since new management's arrival three years ago. Ten months after submitting our original application, we received 510(k) clearance for our SOLAR™ Surgical Ablation System for the delivery of laser energy to soft tissue in March 2007. We expect the SOLAR™ System to move quickly from a controlled launch into full scale commercial introduction. Our focused execution in ensuring the success of our first half-dozen SOLAR™ ablation cases has convinced us that we have the right product to bring to our customers.

In addition, market factors continue to align as the company prepares to launch on a full-scale, commercial basis. First, the needs of atrial fibrillation space are more complex than ever before as we continue to learn more about the disease and its prevalence. From both the electrophysiological and surgical standpoints, there have been no significant solutions that would enable a true "capture" of the stand-alone minimally invasive (closed chest, beating heart) market opportunity now estimated at more than $6 billion. Second, hospital and physician reimbursements for a "stand-alone" procedure are established and positive when performed in the cardiac surgery suite. Third, we have determined that the ATRILAZE™ and SOLAR™ Systems can be used together by the surgeon in both concomitant and minimally invasive fashions. These products uniquely allow physicians to create the lesions sets they want, which mimic the desired clinical gold standard. Fourth, our management has ensured a position of strength on both the intellectual property and regulatory fronts, with seven issued patents and four FDA clearances. Finally, the company continues to attract "top level" talent to the opportunity. Be clear: we have the right people with vision, foresight and commitment to make this opportunity succeed. This "execution-oriented" culture reaches from the Board of Directors, through management, and on to the entire organization.

In closing, I would like to thank you, our shareholders, for both your patience and support. Turnarounds, repositions and redirects are never easy tasks. However, MedicalCV is well-poised to embark on a full-scale launch in calendar year 2008. I also would like to thank the Board of Directors for their guidance and counsel as well as all of our employees and the entire management team for their dedication and commitment. We would not be at this critical and exciting point without their efforts. With this shared commitment, I believe we can convert our vision to reality.

Sincerely,

Marc P. Flores
President and Chief Executive Officer
September 5, 2007

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-KSB

☒ **ANNUAL REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

FOR THE FISCAL YEAR ENDED APRIL 30, 2007

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

Commission File Number 000-33295

MedicalCV, Inc.

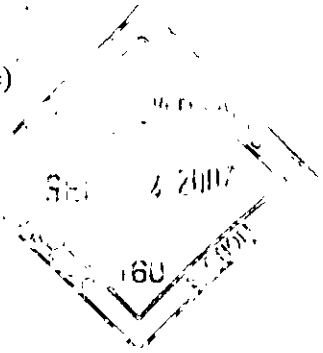
(Name of Small Business Issuer in Its Charter)

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 (Address of Principal Executive Offices)	**55077** (Zip Code)

(651) 452-3000
(Issuer's Telephone Number, Including Area Code)

Securities registered under Section 12(b) of the Exchange Act:
None

Securities registered under Section 12(g) of the Exchange Act:
Common Stock ($0.01 par value)
(Title of Class)



Check whether the issuer is not required to file reports pursuant to Section 13 or 15(d) of the Exchange Act. ☐

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 for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Check if there is no disclosure of delinquent filers in response to Item 405 of Regulation S-B contained in this form, and no disclosure will be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-KSB or any amendment to this Form 10-KSB. ☐

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

The issuer's revenues for its most recent fiscal year were $31,500.

The aggregate market value of the common equity held by non-affiliates of the issuer as of July 2, 2007, was $24,287,307, based upon the last sale price of one share on such date.

As of July 2, 2007, the issuer had outstanding 9,839,724 shares of common stock.

DOCUMENTS INCORPORATED BY REFERENCE

None.

TABLE OF CONTENTS

PART I

ITEM 1 DESCRIPTION OF BUSINESS

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, include those discussed in our Cautionary Statement as well as those discussed elsewhere in this document.

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 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.

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. This process of creating lesions with an energy source is referred to as "ablation." Cardiac tissue ablations have become increasingly common for treating patients with irregular heartbeats ("arrhythmias") that cannot be treated with lifestyle changes or medications. Atrial fibrillation ("AF") is the most commonly occurring cardiac arrhythmia. Decades of research and clinical experience have shown that the gold standard for patient care in treating AF is through the creation of an extensive set of lesion lines with a surgeon's scalpel, known as the Cox-Maze procedure. We believe that our laser platform offers general and cardiothoracic surgeons a way to produce the appropriate set of clinically relevant lesions in a faster, less technically challenging procedure using our proprietary tools. Our long-term goal is to provide a stand-alone, closed chest, beating heart, minimally invasive surgical ablation treatment option for AF.

MedicalCV, Inc. was incorporated in Minnesota on March 30, 1992, under the name CV Dynamics, Inc.

Products

Our ATRILAZE ™ Surgical Ablation System ("ATRILAZE System") utilizes laser energy, delivered through both rigid and malleable handheld wands, for cardiac tissue ablation in open-heart surgical procedures and robotically in stand-alone ablation procedures. We acquired the initial technology in August 2003 and we have developed several generations of products beyond the initial technology purchase. We received U.S. Food and Drug Administration ("FDA") 510(k) clearances for our rigid wand in November 2004 and for our malleable wand in October 2005, both of which utilize the 810 nanometer ("nm") wavelength of laser energy.

The ATRILAZE System is currently being utilized in the U.S. to ablate cardiac tissue concomitantly, or in conjunction, with open-heart surgical procedures and robotically in stand-alone ablation procedures. The ATRILAZE System competes with a number of other energy sources described below, which are used for cardiac tissue ablation. Currently, there are approximately 40,000 cardiac ablations performed annually in the U.S., 25,000 of which are performed predominantly by electrophysiologists ("EPs") using a

non-surgical, or endovascular approach. The 15,000 remaining annual ablations are typically performed by cardiothoracic surgeons, the target customers for the ATRILAZE System.

We received a third FDA 510(k) clearance for our ATRILAZE System in April 2006 covering an additional laser energy wavelength of 1064 nm, which we believe has distinctive, clinically superior properties for tissue ablation, especially for cardiac tissue, during beating heart procedures.

Our next generation system, the SOLAR™ Surgical Ablation System ("SOLAR System"), includes a sophisticated computerized controller which serves to automate the movement and dosing of laser energy so as to deliver consistent, reproducible tissue ablation. The SOLAR System, which also operates at a laser wavelength of 1064 nm, effectively automates the lesion-creating process and reduces the possibility of surgeon error. We received FDA 510(k) clearance of our SOLAR System for the ablation of soft tissue in March 2007. It is our goal to obtain an FDA clearance for cardiac tissue ablation in the future by providing appropriate clinical data. Widespread adoption of the SOLAR System for the treatment of AF will likely require a clinical trial to provide safety and clinical efficacy data in support of a Premarket Approval ("PMA"). It is our long-term goal to pursue a labeling claim for AF through such a trial.

Marketplace

AF, the most commonly occurring cardiac arrhythmia, is an irregular heartbeat in which abnormal electrical impulses cause the upper chambers of the heart (atria) to fibrillate, or quiver, at rapid rates of 400 to 600 times per minute. AF reduces cardiac output, is a major precursor to congestive heart failure, and is associated with an increased incidence of stroke. Patients afflicted with AF are five times more likely to suffer a stroke and are more likely to suffer increased mortality at an earlier age. According to the Framingham Study published in 2004, one in four people over 40 years of age in the U.S. has a lifetime risk of developing AF and the incidence of AF increases with age. A reported study suggests that there are more than 5.0 million people afflicted by AF in the U.S. alone, with more than 200,000 new diagnoses each year. We estimate the annual market for concomitant, open-chest surgical AF procedures to be approximately $190 million to $250 million. Our ATRILAZE System primarily addresses this market. The projected annual market for stand-alone, minimally invasive AF surgical procedures is expected to reach $6 billion. For the SOLAR System to compete in this larger market, we will be required to demonstrate safety and clinical efficacy through clinical studies in support of a PMA.

Since November 2005, we have been offering the ATRILAZE System to select centers in the U.S. for surgical ablation in concomitant open-heart procedures to increase surgeon exposure to our laser-based platform. We recognized $31,500 of ATRILAZE System single-use device sales as revenue in the fiscal year ended April 30, 2007. These sales represented sales to three medical centers. In May 2007, the first clinical human cases were completed using the SOLAR System, some of which also involved the use of the ATRILAZE System to create more complete lesion sets. Our long-term goal is to have the SOLAR System delivered in a truly minimally invasive setting, through small incisions or ports, for the stand-alone treatment of AF. We also seek to incorporate laser wands into our next iteration of the SOLAR System in order to allow physicians to create more complete lesion sets without separate use of our ATRILAZE System. This will require additional product development and regulatory clearance.

AF Treatment Options

There are currently four primary treatment modalities for AF with a wide range of success and complication rates. AF patients are sometimes characterized as being paroxysmal, persistent, or permanent, sometimes referred to as chronic. The effectiveness of various treatment options will vary according to the type of AF experienced by the patient.

- *Drugs*—As a first line of treatment, patients typically receive drug therapy to prevent blood clots, control heart rate and restore the heart rhythm. These drugs are often ineffective, not well tolerated

and may be associated with significant side effects. For these reasons, drug therapy for AF fails for up to 50 percent of patients within one year and 60 percent of patients within two years. Some younger patients with paroxysmal AF may be effectively treated with medications, and so may not be candidates for ablations.

- *Implantable Devices*—Implantable devices, such as defibrillators and pacemakers, can be effective in reducing the symptoms and number of AF episodes, but neither device is intended to be curative. Patients may continue to experience the adverse effects of AF as well as some of the symptoms, including dizziness and fatigue, because the AF continues.
- *Catheter-Based Treatment*—Catheter-based AF treatments are technically challenging, involve long procedure times, can be associated with serious complications and yield inconsistent results. About 25,000 catheter based ablations are performed annually in the U.S., which is small in relation to both the incidence and prevalence of AF.
- *Surgery*—There are two types of surgical approaches to treating AF. These procedures are frequently done concomitantly with mitral valve or coronary artery bypass surgery:
  - *Cox Maze III Procedure*—The standard for curative treatment of atrial fibrillation is known as the Cox Maze III procedure, which has been available for about one decade. This is a maximally invasive procedure that is routinely done concomitantly and requires breaking the sternum, opening the patient's chest, placing the patient on the heart-lung machine, stopping the heart, disassembling, and finally reassembling the atrial chambers of the heart. This is done to create lesion lines using the surgeon's scalpel to interrupt the erratic electrical impulses that cause AF. Historically, success rates of approximately 90 percent have been reported in the literature, but much of this is based on limited patient follow-up with methods that might not be deemed acceptable today. In addition, it is a technically difficult and time-consuming procedure, carrying substantial cost and risks. The postoperative recovery times are long, and the morbidity and mortality risks of this procedure are significant.
  - *Modified Maze Procedure*—Because of the significant technical challenges associated with the classic Maze procedure, modifications were developed. These involved using ablation techniques rather than a scalpel to achieve lesion transmurality, or full-thickness necrosis, in the target tissue. These technologies, however, have been designed to facilitate ablation mainly in the open-chest setting.

Stand-Alone AF Procedures

Since AF is the most commonly occurring cardiac arrhythmia, EPs and cardiothoracic surgeons have been turning their attention to treating certain types of AF patients in stand-alone procedures. Since no device currently has FDA clearance for stand-alone treatment of AF, all of these procedures are "off-label." Surgeon preference is to employ newer minimally invasive cardiac surgery techniques because they are said to lower costs, reduce patient trauma and provide better outcomes. We believe that these techniques will be used more frequently and represent one of the fastest growing segments within the cardiovascular surgery market. Closed-chest procedures are done utilizing thoracoscopic and/or robotic techniques that allow the cardiovascular surgeon access through ports or small incisions. This technology effectively allows extensions of the surgeon's own hands to be placed inside the patient's closed chest cavity through instrumentation and to view the cardiac anatomy as in an open-chest setting. Because of cardiac surgeons' growing familiarity with these techniques outside of the AF space, we believe there are significant opportunities in minimally invasive AF treatments. We believe our technology is ideal for the minimally invasive setting because of the small size and flexibility of the optical fiber and the potential to optimize the delivery system for this application.

The use of our SOLAR System for minimally invasive treatment of AF will require additional development and the completion of a clinical trial demonstrating safety and clinical effectiveness, resulting in our product being labeled for AF. As of July 2, 2007, no medical device in the U.S. had FDA approved labeling for the treatment of AF, although some companies have already begun their own clinical studies to obtain specific labeling for AF.

Alternative Energy Sources for Surgical Ablation

A number of energy sources are currently used to ablate cardiac tissue in an open-chest, modified Maze procedure. These energy sources are used to create transmural lesions which interrupt the abnormal electrical impulses that cause AF.

- *Cryothermy*—also referred to as cryoenergy or "cryo." This type of energy uses either a catheter or hand-held probe to ablate cardiac tissue by freezing at extreme temperatures of up to negative 60°C.
- *Radiofrequency-Monopolar*—also referred to as RF. This type of energy uses either a catheter or hand-held probe or pen to ablate cardiac tissue by using heat from radio waves.
- *Radiofrequency-Bipolar*—also referred to as Bipolar RF. This type of energy uses a hand-held clamp device with two poles to ablate cardiac tissue by using heat from radio waves.
- *Microwave*—This type of energy uses either a catheter or hand-held probe to ablate cardiac tissue by using heat from microwave.
- *Ultrasound*—sometimes referred to as high-intensity focused ultrasound, or HIFU. This type of energy uses either a catheter or hand-held probe to ablate cardiac tissue by using heat from ultrasonic energy.
- *Laser*—also referred to as light energy or photocoagulation. This type of energy functions at varying wavelengths and uses either a catheter or hand-held device to ablate cardiac tissue by using absorptive heating.

We believe that our laser-based technology platform offers significant clinical advantages over other competing energy sources for tissue ablation, and especially for cardiac tissue ablation. Lasers provide a coherent energy source which produces transmural lesions with precision. Most importantly, based on our preclinical work, we believe that our technology platform limits collateral damage to other organs and delivers clinically significant lesions on a beating heart. In developing our platform, we believe that we have found an ideal wavelength at 1064 nm, which provides deep tissue penetration, thereby producing transmural lesions. Additionally, because of its wavelength, development work indicates that our laser light scatters when it contacts blood, thereby lowering the risk of overheating and injuring target tissue or associated organs. Finally, in our SOLAR System, the use of a computer-driven, reciprocating controller delivers a consistent, reproducible dosing of laser energy to tissue, effectively automating the lesion-creating process and reducing the possibility of surgeon error.

The MedicalCV Strategy

Although neither the ATRILAZE System nor the SOLAR System has been cleared by the FDA for the treatment of cardiac arrhythmias, we intend to compete in the surgical ablation market by executing on the following strategy:

- **Educate physicians and patients about the features and benefits of our systems.** We believe education of physicians and patients regarding the benefits of laser ablation is critical to the successful adoption of our technology. We intend to develop cardiovascular surgeon and EP training and education programs which will emphasize the short ablation times, precise dosing, and

clinically relevant lesions which can be created with our systems. We also intend to educate EPs and cardiothoracic surgeons about the benefits of working together in order to get those suffering from AF referred to the best treatment modality for each specific patient.

- **Conduct appropriate clinical studies for labeling and for patient selection.** The available data sets for surgical ablations is relatively small compared to catheter-based ablation, which is a barrier to more widespread use of laser-based ablation by surgeons. In order to get more data, our physicians will be developing protocols for investigator-initiated studies, both single-center and multi-center, using our SOLAR System.
- **Build a dedicated sales team to drive adoption.** Our management team has a successful track record in rolling out innovative technologies in the cardiac surgery suite. Once the final design parameters of our SOLAR System have been implemented, we intend to work with a team of seasoned sales professionals, supported by appropriate clinical specialists, to focus initially on high volume centers and to work on "going deep" within these centers to establish a solid base for expansion of our sales. These initial centers would likely be the core of our investigational sites for our AF clinical trial. It is likely that key physicians at these investigational sites may also be consultants to our company or serve on our Scientific Advisory Board.
- **Expand and improve our core technology through continuing research and development.** We will work on developing ancillary products, such as dissectors and other surgical accessories, to simplify the surgical procedures and to increase our revenue. We also plan to work on adding additional functionality to our SOLAR System, in addition to making continuing engineering improvements. Through the results of our early cases and subsequent clinical studies, we hope to improve the dosing algorithm in our SOLAR System, which can be modified through software-mediated changes to our controller. We believe these efforts will contribute to increased acceptance of our products.

Regulatory Clearance

Our ATRILAZE System has received three 510(k) clearances:

- In November 2004, our hand-held wand received 510(k) clearance for delivery of laser light to soft tissue, including cardiac tissue, during surgical procedures. Indications include the incision, excision, dissection, vaporization, ablation, or coagulation of soft tissue.
- In October 2005, our malleable hand-held wand received 510(k) clearance for delivery of laser light to soft tissue, including cardiac tissue, during surgical procedures with the same indications, including the incision, excision, dissection, vaporization, ablation, or coagulation of soft tissue.
- In April 2006, both hand-held devices were the subject of a third 510(k) clearance allowing for the expansion of our laser base platform by the addition of a second wavelength.

In May 2006, we filed an application for 510(k) clearance of our SOLAR System. In March 2007, we obtained 510(k) clearance of our SOLAR System for delivery of laser light to soft tissue, under direct visualization, during surgical procedures. Indications include the ablation or coagulation of soft tissue. We expect to continue utilizing our SOLAR System prototypes for initial evaluations and reports through the end of calendar year 2007. We expect to introduce the SOLAR System for full commercial launch, with soft tissue clearance, in early calendar year 2008. In early calendar year 2008, we expect to establish a clinical protocol with the FDA regarding the study required to expand the labeling of our SOLAR System to cardiac tissue. Thereafter, we anticipate developing a clinical protocol with the FDA regarding the study required to further expand the labeling to AF.

Sales and Marketing

In the U.S., we intend to market our systems through a specialized, direct sales organization. In expectation of full commercial launch of our SOLAR System, we have hired a Vice President of Marketing and two Clinical Specialists. In addition to supporting our current efforts, this team will be responsible for the hiring and training of our sales organization. We expect to initially focus on cardiovascular surgeons who have active open heart practices and are considered to be opinion leaders in minimally invasive surgical techniques, and on hospitals with well-established cardiovascular programs. The key physicians at these initial sites will likely be members of our Scientific Advisory Board or paid consultants. Over time, we expect to expand our sales and marketing organizations to service a broader group of potential customers. In addition, we intend to build patient awareness through partnerships with cardiovascular surgeons, their cardiac services partners, and hospitals. Our goal is to obtain appropriate regulatory clearances to distribute our products internationally. Our products are not currently cleared for sale in international markets. Outside the U.S., we intend to develop a network of distributors to assist in our international sales and marketing efforts.

Manufacturing

Our systems have been designed internally, along with design support services from external vendors on our hardware. We expect that the final assembly of the disposable SOLAR System components and quality control will take place internally, although we will use outside suppliers to work on certain sub-assemblies and processes. The manufacture of the hardware system components will be outsourced to qualified vendors. Product sterilization and related testing will also be outsourced to qualified vendors.

During fiscal year 2007, we entered into a production services agreement, along with an accompanying services agreement and sustaining services agreements, with Minnetronix, Inc. pursuant to which Minnetronix will manufacture our controller and provide certain maintenance and other services for such instrument. We believe that we have access to alternative suppliers, should we have the need to find other sources for the manufacturing of our components.

During fiscal year 2008, we plan to focus on manufacturing inventory to support an unrestricted full commercial launch of our SOLAR System. To accomplish this, our manufacturing department will build initial lots to allow the necessary design verification, sterilization qualification, design and process validation, shipping and shelf-life testing. Our research and development costs relate primarily to prototype design, quality verification testing, pre-commercialization development, and evaluation unit testing of the SOLAR System. We incurred research and development expenses of $6,668,929 and $3,471,241 during the fiscal years ended April 30, 2007 and 2006, respectively.

Intellectual Property

We intend to aggressively document and protect our intellectual property by obtaining U.S. and foreign patents to protect technology important to the development of our business. As of July 3, 2007, we had six issued U.S. patents, ten non-provisional U.S. patent applications, eight international (PCT) patent applications, two European patent applications, and one each of patent applications in Australia, Canada and Japan relating to products we have designed for use in treating AF. Obtaining patent protection for our products will be critical to our commercial success. We regularly conduct searches of third party patents. This includes a review of patents owned by third parties and patent applications pending known to us as attempting to address treatment of AF using a laser to ablate cardiac tissue. We regularly search publicly available records for relevant patents assigned to other companies. During the course of these searches, we identified two issued patents in our field relating to the use of laser technology for which we deemed it advisable to seek the advice of patent counsel. Based upon advice from our patent counsel, we believe that the sale and use of our cardiac tissue ablation systems using infrared laser energy would not infringe any valid claim of these patents.

We cannot assure you that any patents issued to us will be valid, enforceable or otherwise be of value to us in relation to products of our competitors or the market in general, or that any patent for which we have applied or may apply will issue.

In April 2005, we received a letter from Edwards Lifesciences, LLC ("Edwards") concerning our ATRILAZE System, which is the subject of some of our patent applications. Edwards did not claim that our products infringe any of its patents. Edwards' letter called to our attention six of its patents and requested us to comment on how our products differ from the claimed methods and apparatus of the six specified Edwards patents.

We reviewed the specified Edwards' patents and discussed them with our patent counsel, and believe that our surgical ablation systems do not infringe any of these patents. In response to a further inquiry from Edwards in May 2006, we responded through patent counsel outlining our position on at least one of the Edwards' patents. While Edwards did not claim in its letter that our products infringe its patents, it is possible that in the future, Edwards or others will inquire regarding our products and patents and perhaps make intellectual property claims relating to our tissue ablation devices. Subsequent to these inquiries by Edwards, Edwards announced that it was discontinuing development and support of its laser-based ablation system in the U.S.

Our defense of any claims made by Edwards, or of any other intellectual property claims made in the future, regardless of the merits of such claims, could divert the attention of our technical and management personnel away from developing and marketing our products for significant periods of time. Further, the cost incurred to defend such claims could be substantial and adversely affect us, even if we are ultimately successful in defending such claims. An adverse determination in connection with any of such claims in the future could affect our ability to sell our products, subject us to significant liabilities to third parties, or require us to modify our products to be non-infringing or seek licenses from third parties. There can be no assurance that we would be able to make the necessary modifications to our products or obtain licenses on satisfactory terms.

We also rely upon trade secrets and proprietary know-how. We require our technical employees and consultants to agree in writing to keep our proprietary information confidential and, with certain limitations, to assign all inventions relating to our business to us.

We have used, and therefore claim common law rights in, the following trademarks: GLIDETHRU, ULTRAPURE, ATRILAZE and SOLAR. We have filed an application for a U.S. federal registration for the mark: ATRILAZE and SOLAR. The U.S. Patent and Trademark Office granted an extension of time to another company until August 1, 2007 to oppose our SOLAR trademark. As of July 16, 2007, we have not received any notice that a formal opposition has been instituted. We also have a federal registration for the marks: MEDICALCV and OMNICARBON. Federal trademark registrations continue indefinitely, so long as the trademarks are in use and periodic renewals and other required filings are made.

Competition

Our industry is highly competitive, subject to change, and significantly affected by new product introductions and other activities of industry participants. Many of our competitors have significantly greater financial and human resources than we do and have established reputations with our target customers, as well as distribution channels that are more established and developed than ours. Our primary competitors include AtriCure, Inc., ATS Medical, Inc., Boston Scientific Corp., Cardima, Inc., CardioFocus, Inc., CryoCath Technologies, Inc., Cryocor, Inc., ESTECH, Inc., Johnson and Johnson, Inc., Medtronic, Inc., nContact Surgical, Inc., and St. Jude Medical, Inc. As of July 2, 2007, no medical device in the U.S. had FDA approved labeling for the treatment of AF, although some of these competitors have already begun their own clinical studies to obtain specific labeling for AF. In addition, our competitors provide products that have been adopted by physicians for the off-label treatment of AF.

We and many of our competitors have developed surgical ablation devices that have been used to treat AF concomitant with an open-heart surgical procedure. We and these competitors utilize different technologies as energy sources for ablation devices, including cryothermy, radiofrequency, microwave, high-intensity focused ultrasound, and laser. Each of these companies is also currently working with its core technology to develop devices that can be used as a stand-alone therapy for minimally invasive AF treatment.

Some of our primary competitors offer catheter-based treatments. These companies sell products that are used by physicians to treat the population of patients that have AF, but are not candidates for open-heart surgery, which is the same group of patients that we believe would most benefit from stand-alone AF treatments using our SOLAR System. Some of these catheter-based treatments already have FDA clearance or approval for cardiac use, including the minimally invasive treatment of certain arrhythmias, although none has approval for the treatment of AF.

Although we believe that we will compete favorably, because of the size of the AF market and the unmet need for an AF therapy, competitors have and will continue to dedicate significant resources to aggressively market their products. New products that could compete with us more effectively are likely because the surgical AF treatment market is characterized by extensive research efforts and technological progress.

Government Regulation

U.S. Food and Drug Administration Regulation

The medical devices we manufacture and market are subject to regulation by the FDA and, in most instances, by state and foreign authorities or their designated representatives. Under the U.S. Federal Food, Drug and Cosmetic Act and the regulations promulgated thereunder, as a manufacturer of medical devices, we must comply with policies and procedures that regulate the preclinical testing, clinical testing, design, manufacture, safety, efficacy, labeling, packaging, storage, record keeping, sales, distribution, postmarket adverse event reporting, advertising and promotion of medical devices. In addition, medical devices are subject to different levels of government approval requirements, the most comprehensive of which requires the completion of an FDA approved clinical trial, the submission of safety and effectiveness data, and approval of a PMA application before a device may be commercially marketed. The FDA also conducts inspections before approving a PMA application to determine compliance with the quality system regulations which cover manufacturing and design.

After a PMA is received, the FDA may require testing and surveillance programs to monitor the effectiveness of approved products which have been commercialized. It has the power to prevent or limit further marketing of a product based on the results of such post-marketing programs. In addition, the FDA may, at any time after the grant of a PMA, conduct periodic inspections to determine compliance with good manufacturing practice regulations and current medical device reporting regulations. If the FDA concludes that we are not in compliance with applicable laws or regulations, it can institute proceedings to:

- Seize our products;
- Require a product recall;
- Withdraw previously granted market clearances;
- Implement procedures to stop future violations; and/or
- Seek civil and criminal penalties against us.

The FDA also regulates recordkeeping for medical devices and reviews hospital and manufacturers' required reports of adverse experiences to identify potential problems with FDA-authorized devices.

Some of the products that we market, including our ATRILAZE and SOLAR Systems, can be cleared for certain indications under Section 510(k) of the Federal Food, Drug and Cosmetic Act. Under Section 510(k) a new or significantly modified device must demonstrate "substantial equivalence" ("SE") to an existing legally marketed device. The new or modified device can be commercially introduced after the filing of a 510(k) Premarket Notification with the FDA and the subsequent issuance by FDA of an SE determination. The FDA has provided written guidance to manufactures of devices governed by Section 510(k) whereby changes made to previously cleared devices can be evaluated by the manufacturer and a determination can be made as to the need to file an additional premarket application. We have received three Section 510(k) clearances for our ATRILAZE System (November 2004, October 2005 and April 2006) and one Section 510(k) clearance for our SOLAR System (March 2007). The nature of these clearances is described above in "Regulatory Clearance."

The process of obtaining Section 510(k) clearance typically requires less time and expense than the PMA process. Section 510(k) clearance normally takes from three to twelve months, but can take years, and sometimes requires the submission of supporting clinical data, which in some cases can be extensive. In addition, the FDA may require review by an advisory panel as a condition for Section 510(k) clearance. Achievement of our long-term goal of stand-alone AF treatment will require clearance under the FDA's lengthier and expensive PMA process, which can take a number of years and can require extensive supporting documentation. If we encounter difficulties in the PMA process, commercial marketing for the stand-alone treatment of AF could be substantially delayed or prevented.

If U.S. clinical data is required to support a PMA application, generally, an investigational device exemption, or IDE, will need to be assembled and submitted to the FDA. The FDA reviews and must approve an IDE before a study may begin in the U.S. In addition, the study must be approved by an Institutional Review Board, or IRB, for each clinical site. When all approvals are obtained, the study may be initiated to evaluate the device. The FDA, and the IRB at each institution at which a clinical trial is being performed, may suspend a clinical trial at any time for various reasons, including a belief that the subjects are being exposed to an unacceptable health risk. All clinical studies of investigational devices must be conducted in compliance with the FDA's extensive requirements. During a study, we would be required to comply with the FDA's IDE requirements for investigator selection, trial monitoring, reporting, record keeping and prohibitions on the promotion of the investigational devices or the making of safety or efficacy claims about them. The investigators must obtain patient informed consent, rigorously follow the investigational plan and study protocol, control the disposition of investigational devices, and comply with all reporting and record keeping requirements. Following completion of a study, we would need to collect, analyze and present the data in an appropriate submission to the FDA. The use of our SOLAR System for minimally invasive treatment of AF will require additional development and the completion of a clinical trial demonstrating safety and clinical effectiveness, resulting in our product being labeled for AF.

Foreign Regulation

International sales of medical devices are also subject to extensive regulation. Foreign regulatory bodies have established varying regulations governing product standards, packaging requirements, labeling requirements, import restrictions, tariff regulations, duties and tax requirements. Generally, the extent and complexity of the regulation of medical devices is increasing worldwide, with regulations in some countries already nearly as extensive as those in the U.S. This trend may continue, and the cost and time required to obtain marketing approval in any given country thus may increase. We cannot assure you that any foreign approvals will be allowed on a timely basis, or at all.

To market our products in countries of the European Union ("EU"), we are required to obtain Communauté Européenne ("CE") mark certification. The CE mark is the international symbol of adherence to certain quality assurance standards and compliance with European medical device directives. We intend to begin the process of applying for CE mark certification for our SOLAR System in fiscal year 2008. Given the time and expense associated with obtaining a CE mark and setting up related distribution capabilities and corporate support in the EU, there can be no assurance that we will succeed in generating a significant volume of sales in the EU.

Anti-Kickback Statutes and Federal False Claims Act

The federal healthcare program Anti-Kickback Statute prohibits persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual, or furnishing or arranging for a good or service, for which payment may be made under a federal healthcare program such as the Medicare and Medicaid programs. The definition of "remuneration" has been broadly interpreted to include anything of value, including for example gifts, discounts, the furnishing of supplies or equipment, credit arrangements, payments of cash and waivers of payments. Several courts have interpreted the statute's intent requirement to mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered business, the statute has been violated. Penalties for violations include criminal penalties and civil sanctions such as fines, imprisonment and possible exclusion from Medicare, Medicaid and other federal healthcare programs. In addition, some kickback allegations have been claimed to violate the Federal False Claims Act, discussed in more detail below.

The Anti-Kickback Statute is broad and prohibits many arrangements and practices that are lawful in businesses outside of the healthcare industry. Recognizing that the Anti-Kickback Statute is broad and may technically prohibit many innocuous or beneficial arrangements, Congress authorized the Office of Inspector General of the Department of Health and Human Services, or OIG, to issue a series of regulations, known as the "safe harbors" which it did, beginning in July 1991. These safe harbors set forth provisions that, if all their applicable requirements are met, will assure healthcare providers and other parties that they will not be prosecuted under the Anti-Kickback Statute. The failure of a transaction or arrangement to fit precisely within one or more safe harbors does not necessarily mean that it is illegal or that prosecution will be pursued. However, conduct and business arrangements that do not fully satisfy each applicable safe harbor may result in increased scrutiny by government enforcement authorities such as the OIG.

Many states have adopted laws similar to the Anti-Kickback Statute. Some of these state prohibitions apply to referral of patients for healthcare items or services reimbursed by any source, not only the Medicare and Medicaid programs.

Government officials have focused their enforcement efforts on marketing of healthcare services and products, among other activities, and recently have brought cases against sales personnel who allegedly offered unlawful inducements to potential or existing customers in an attempt to procure their business. As part of our compliance program, we plan to review our sales contracts and marketing materials to assure compliance with the Anti-Kickback Statute and similar state laws, and will inform employees and marketing representatives of the Anti-Kickback Statute and their obligations thereunder. However, we cannot rule out the possibility that the government or other third parties could interpret these laws differently and assert otherwise.

Another trend affecting the healthcare industry is the increased use of the False Claims Act and, in particular, actions under the False Claims Act's "whistleblower" or "qui tam" provisions. Those provisions allow a private individual to bring actions on behalf of the government alleging that the defendant has defrauded the federal government. In recent years, the number of suits brought against healthcare

providers by private individuals has increased dramatically. In addition, various states have enacted laws modeled after the False Claims Act.

When an entity is determined to have violated the False Claims Act, it may be required to pay up to three times the actual damages sustained by the government, plus civil penalties of between $5,500 to $11,000 for each separate false claim. There are many potential bases for liability under the False Claims Act. Liability arises, primarily, when an entity knowingly submits, or causes another to submit, a false claim for reimbursement to the federal government. The False Claims Act has been used to assert liability on the basis of inadequate care, improper referrals, and improper use of Medicare numbers when detailing the provider of services, in addition to the more predictable allegations as to misrepresentations with respect to the services rendered. We are unable to predict whether we could be subject to actions under the False Claims Act, or the impact of such actions. However, the costs of defending claims under the False Claims Act, as well as sanctions imposed under the False Claims Act, could significantly affect our financial performance.

Our future activities relating to the reporting of wholesale or estimated retail prices for our products, the reporting of discount and rebate information and other information affecting federal, state and third-party reimbursement of our products, and the sale and marketing of our products, may be subject to scrutiny under these laws. In addition, companies have been prosecuted under the False Claims Act in connection with alleged off-label promotion of products.

Third Party Reimbursement

In the U.S., as well as in foreign countries, government-funded or private insurance programs, commonly known as third-party payors, pay the cost of a significant portion of a patient's medical expenses. A uniform policy of reimbursement does not exist among all these payors. Therefore, reimbursement can be quite different from payor to payor. We believe that reimbursement is an important factor in the success of any medical device. Consequently, we will seek to obtain reimbursement for all of our products.

Reimbursement in the U.S. depends on our ability to obtain FDA clearance and approvals to market our products. Reimbursement also depends on our ability to demonstrate the short-term and long-term clinical benefit and cost-effectiveness of our products. To demonstrate these, we will need to document our experience, using established scientific guidelines. We expect to present these results at major scientific and medical meetings and publish them in respected, peer-reviewed medical journals.

The U.S. Center for Medicare and Medicaid Services, or CMS, sets reimbursement policy for the Medicare program in the U.S. CMS policies may alter coverage and payment for cardiovascular device technologies in the future. These changes may occur as a result of the National Coverage Decisions issued by CMS headquarters or as the result of the local or regional coverage decisions by contractors under contract with CMS to review and make coverage and payment decisions. This administration has a national coverage policy, which provides for the diagnosis and treatment of cardiovascular disease in Medicare beneficiaries.

All third-party reimbursement programs, whether government funded or insured commercially, whether inside the U.S. or outside, are developing increasingly sophisticated methods of controlling health care costs through prospective reimbursement and capitation programs, group purchasing, redesign of benefits, second opinions required prior to major surgery, careful review of bills, encouragement of healthier lifestyles and exploration of more cost-effective methods of delivering health care. These types of programs and legislative changes to reimbursement policies could potentially limit the amount which health care providers may be willing to pay for medical devices.

Product Liability and Insurance

The development and sale of medical devices entails significant risk of product liability claims and, sometimes, product failure claims. We face an inherent business risk of financial exposure to product liability claims if the use of our products results in personal injury or death. We also face the possibility that defects in the design or the manufacturing of our products could necessitate a product recall. We have not, to date, experienced significant product liability claims, and we have never had a product recall. We cannot assure you, however, that we will not experience losses in the future due to product liability claims or recalls.

If patients allege that the use of our cardiovascular surgery devices injured them, we may face substantial product liability claims. Substantial product liability litigation exists within the medical device industry. Our products are used in cardiovascular surgery, and their failure may result in patient injury or death. We have had product liability claims asserted against us in the past, which were resolved under our insurance coverage without significant financial cost to us. We cannot assure you, however, that future product liability claims will not exceed the limits of our insurance coverage or that such insurance will continue to be available to us on commercially reasonable terms, or at all. Consequently, a product liability claim or other claim with respect to uninsured liabilities, or in excess of insured liabilities, could have a material adverse effect on our business, financial condition, operating results and cash flows. In addition, adverse publicity resulting from product liability litigation may materially adversely affect us regardless of whether the claims are valid or whether we are liable. Furthermore, these claims would likely divert our financial and management resources that would otherwise be used to benefit the future performance of our operations.

We sold more than 50,000 mechanical heart valves between 1992 and 2005. We assume that a majority of the patients who received our heart valves are still alive. If any of these patients were to have a problem with a heart valve, they could assert claims for damages against us. In April 2005, we placed our product liability insurance with a new insurance carrier. Our new policy provides us with potential coverage for claims of up to $5.0 million per occurrence and in the aggregate per policy year. Concurrently, we purchased a three-year extended reporting coverage endorsement from our former carrier, which was unwilling to renew our coverage on the previous terms. The extended reporting period coverage will allow us to seek coverage under the prior policy for products claims arising from occurrences which took place during such policy period but which were not asserted against us during the previous policy period.

In March 2005, we became aware that a patient who had been implanted with 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.

Employees

As of July 2, 2007, we had 29 employees, 24 of whom were full-time employees. Half of our full-time employees work in, or support, research and development. Our remaining employees work in administration, regulatory and clinical, and sales and marketing. We are not a party to any collective bargaining agreement and believe that our relations with employees are good.

Executive Officers of the Registrant

The following table provides information with respect to our executive officers as of July 2, 2007. Each executive officer has been appointed to serve until his successor is duly appointed by the board or his earlier removal or resignation from office. Each executive officer's position with MedicalCV represents such person's principal occupation.

Name	Age	Position with MedicalCV	Director Since
Marc P. Flores	42	President, Chief Executive Officer and Director	2004
Adam L. Berman	32	Vice President, Research and Development	N/A
Eapen Chacko	59	Vice President, Finance and Chief Financial Officer	N/A
Robert W. Clapp	57	Vice President, Operations	N/A
Gary O. Tegan	40	Vice President, Marketing	N/A

Marc P. Flores became our President, Chief Executive Officer and one of our directors in August 2004. Mr. Flores served as Vice President of Sales & Marketing of Coalescent Surgical, Inc., a company focused on developing advanced technology for blood vessel anastomoses, from March 2000 to August 2004. Prior to joining Coalescent, Mr. Flores was Western Regional Manager of Sales for CardioThoracic Systems, Inc. from June 1997 to March 2000. Before joining CardioThoracic Systems, he held a variety of management and sales positions with Boston Scientific Corporation, GE Medical Systems and Xerox Corporation.

Adam L. Berman joined MedicalCV in September 2004 as Vice President, Research and Development. Mr. Berman has extensive experience and relationships within the cardiac surgery industry. From July 2001 to August 2004, he was a regional sales manager for Coalescent Surgical, Inc. From August 1998 to June 2001, he was a regional development manager for Computer Motion, a company focused on robotic-assisted, minimally invasive approaches for surgery. Before joining Computer Motion, Mr. Berman held various clinical research positions within the field of cardiac surgery.

Eapen Chacko joined MedicalCV in June 2006, as Vice President, Finance and Chief Financial Officer and assumed the roles of principal financial officer and principal accounting officer in July 2006. Mr. Chacko has over 30 years of experience in strategic planning, investor relations, equity research and economics. From September 2000 to May 2005, he was Chief Financial Officer of Possis Medical, Inc., a publicly held developer, marketer and manufacturer of medical devices for the endovascular treatment market. Mr. Chacko was Vice President for Investor and Public Relations, Corporate Communication at Possis from September 1999 to August 2000. From 1995 to 1999, he was Director of Investor Relations at Fingerhut Companies, a publicly held direct marketer and financial services company. Mr. Chacko is a director of Hawkins, Inc., a publicly held company that formulates, blends and distributes bulk and specialty chemicals. Mr. Chacko has been named, along with his former employer Possis Medical, Inc. and another officer of that company, as a defendant in a securities class action case entitled Crowell, et al. v. Possis Medical, Inc. et al., No. 05-CV-01084-JMR-FLN, originally filed on June 3, 2005 in the U.S. District Court for the District of Minnesota. The consolidated amended class action complaint alleges violations of Section 10(b) and Rule 10b-5 of the Exchange Act against all defendants and claims under Section 20(a) against the officer defendants, all arising out of alleged misstatements and omissions about that company's AngioJet product and clinical trials for that product. This securities class action case was dismissed, with prejudice, by the presiding judge, although that decision is being appealed. Mr. Chacko plans to resign from his positions at our company on September 15, 2007.

Robert W. Clapp joined MedicalCV in August 2004 as Vice President, Operations. From March 1993 to August 2004, Mr. Clapp was Vice President of Manufacturing, Quality, and Research/Development for EMPI, where he developed and introduced many new products, improved manufacturing efficiencies and

lowered manufacturing costs. From February 1987 to March 1993, he was Vice President of Manufacturing for Dacomed Corporation, where he helped introduce five new products into the marketplace in 18 months. Prior to that, Mr. Clapp held engineering and operations positions at Xerxes Corporation, Medtronic, Inc., Control Data Corporation and AMF Paragon Electric.

Gary O. Tegan, Vice President, Marketing, joined MedicalCV in April 2006. Most recently, Mr. Tegan served as the Vice President of Sales & Marketing for PneumRx, Inc. from September 2005 through April 2006, where he developed and implemented the company's sales and marketing strategy for its initial product launch. From June 2004 to September 2005, he served as Vice President of Marketing at Curon Medical, Inc., a radiofrequency energy based company focused on the treatment of gastrointestinal disorders. Prior to that, Mr. Tegan was the Director of Marketing for Coalescent Surgical, Inc. from June 2001 to June 2004, where he helped develop its anastomotic device business using technology-based marketing techniques. Previously, Mr. Tegan held a series of senior sales and marketing positions at United States Surgical and Starion Instruments.

ITEM 2 DESCRIPTION OF PROPERTY

We lease a 55,000 square foot production and administrative facility located in Inver Grove Heights, a suburb of Saint Paul, Minnesota. Our facility has approximately 8,000 square feet of general office space and more than 41,000 square feet of manufacturing space. Our facility is subject to inspection by the U.S. Food and Drug Administration and foreign regulatory agencies as part of their product marketing clearance and surveillance programs. In April 2003, we sold and leased back this facility in a refinancing transaction with PKM Properties, LLC ("PKM"), an entity controlled by Paul K. Miller, one of our directors and one of the largest beneficial owners of our securities. We simultaneously leased back our facility pursuant to a ten-year lease, with options to renew and an option to repurchase the facility. We continue to utilize the facility as we did prior to the financing transaction. See "Management's Discussion and Analysis or Plan of Operation—Commitments and Contingent Liabilities," "Certain Relationships and Related Transactions, and Director Independence—Certain Relationships and Related Transactions" and the notes to our financial statements for the fiscal year ended April 30, 2007, for more information regarding such lease. In the opinion of management, our production and administrative facility is adequately covered by insurance.

ITEM 3 LEGAL PROCEEDINGS

On March 10, 2006, J Giordano Securities LLC (d/b/a J Giordano Securities Group) ("JGSG") filed suit against our company in U.S. District Court for the District of Connecticut. JGSG, which acted as a private placement agent for our company in connection with sales of our securities to private investors in April 2005, asserts claims for breach of contract, unjust enrichment and quantum meruit. JGSG contends it is owed certain fees as a result of "follow on transactions" executed by investors identified by JGSG, pursuant to the engagement agreement, as amended, between us and JGSG or, in the alternative, that it should be awarded such fees on an equitable basis. In particular, JGSG originally claimed that the exercise of outstanding warrants for the purchase of common stock by certain JGSG-identified investors and our purchase of outstanding shares of 5% Series A Redeemable Convertible Preferred Stock from certain JGSG-identified investors in December 2005 and January 2006 entitled JGSG to damages no less than $1,431,769. JGSG originally sought (a) $279,191 in cash commissions, (b) warrants for the purchase of 85,905 shares at $3.25 per share, (c) lost profits of $751,669 on the argument that JGSG would have exercised the foregoing warrants and sold 85,905 shares on December 30, 2005, at a price of $12.00 per share, and (d) $400,909 in cash commissions we paid C.E. Unterberg, Towbin, LLC ("CEUT").

On September 22, 2006, we asserted a counterclaim against JGSG for fraud and breach of contract based upon JGSG's misrepresentations to induce us to enter the engagement agreement and JGSG's failure to perform its promised services thereunder. We seek damages of (a) the $30,000 retainer and

$543,000 cash paid to JGSG; (b) the value of our warrants for 114,600 shares of common stock issued to JGSG; (c) the $445,328 fee and $27,016 expense reimbursement that we paid CEUT for its advisory services in December 2005 and January 2006; (d) the $3.7 million cash we did not obtain on investor warrant exercises due to the reduced warrant exercise price we were required to accept during those months; and (e) the value of the additional 1.9 million shares of common stock we were required to issue to effectuate the preferred stock purchase during those months. As a result, we counterclaim in excess of $5.0 million.

On November 20, 2006, JGSG filed an amended statement of claim. JGSG added new claims for additional compensation based upon the issuance of additional common stock to preferred stock holders in the alleged "follow-on transactions," our alleged failure to timely file a resale registration statement for JGSG, and for additional compensation based upon our October 2006 private placement. JGSG currently seeks alleged damages of $3,346,565 as follows: (a) $279,191 in cash commissions; (b) warrants for the purchase of 85,905 shares at $3.25 per share; (c) lost profits of $751,669 on the argument that JGSG would have exercised the foregoing warrants and sold 85,905 shares on December 30, 2005, at a price of $12.00 per share; (d) $249,690 in cash pursuant to the alleged failure to timely file a resale registration statement for JGSG; (e) $6,726 in liquidated damages based upon our alleged failure to timely file the resale registration statement for JGSG; (f) $556,214 in cash commissions that JGSG claims it was entitled to based upon preferred stock holders' receipt of additional common stock in the alleged "follow-on transactions"; (g) warrants for the purchase of 171,142 shares at $3.25 per share; (h) lost profits of $952,166 on the argument that JGSG would have exercised the foregoing warrants and sold 171,142 shares on January 3, 2006, at a price of $11.00 per share; (i) $400,909 in cash commissions we paid to CEUT; and (j) $150,000 based upon the fee we paid to CEUT for our October 2006 private placement. JGSG also seeks reimbursement for reasonable expenses, interest, costs and attorneys' fees. The U.S. District Court for the District of Connecticut has referred the matter to NASD arbitration. We believe that JGSG's lawsuit is without merit and intend to vigorously defend ourselves. Given the nature of arbitration, however, it is reasonably possible that we may be expected to pay certain amounts in connection with this claim. Since this is a breach of contract claim, it may not be covered by our insurance.

As of April 30, 2007, we have not recorded an accrual for this matter since the amount to be paid, if any, cannot be reasonably estimated.

ITEM 4 SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

Not applicable.

PART II

ITEM 5 MARKET FOR COMMON EQUITY, RELATED SHAREHOLDER MATTERS AND SMALL BUSINESS ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock trades on the OTC Bulletin Board under the symbol "MCVI." The following table sets forth the high and low bid prices as reported by the OTC Bulletin Board for our common stock for the periods indicated. Such quotations reflect inter-dealer prices, without retail mark-up, markdown or commission, and may not represent actual transactions.

Period	High	Low
Fiscal Year 2006		
First Quarter	$11.90	$6.50
Second Quarter	$10.00	$6.00
Third Quarter	$12.30	$5.30
Fourth Quarter	$13.60	$7.00
Fiscal Year 2007		
First Quarter	$11.00	$2.00
Second Quarter	$ 5.05	$2.80
Third Quarter	$ 4.26	$2.25
Fourth Quarter	$ 5.90	$1.63

As of June 18, 2007, we had 168 shareholders of record and approximately 679 beneficial owners.

We have never declared or paid cash dividends on our common stock. We currently intend to retain future earnings, if any, to operate and expand our business, and we do not anticipate paying cash dividends on our common stock in the foreseeable future. Any payment of cash dividends in the future will be at the discretion of our board of directors and will depend upon our results of operations, earnings, capital requirements, contractual restrictions and other factors deemed relevant by our board.

See "Security Ownership of Certain Beneficial Owners and Management and Related Shareholder Matters" for information regarding securities authorized for issuance under our equity compensation plans.

Sales of Unregistered Securities during the Fourth Quarter of Fiscal Year 2007

The information set forth below discloses unregistered securities not previously reported in our Current Reports on Form 8-K.

On March 14, 2007, we issued to LightWave Ablation Systems, Inc. ("LightWave") warrants to purchase an aggregate of 5,000 shares of our common stock at an exercise price of $14.60 per share. One warrant for 2,500 shares expires on November 29, 2012. The other warrant for 2,500 shares expires on November 21, 2013. Such warrants were issued in connection with milestone achievements cited in our original technology purchase agreement with LightWave.

The foregoing issuances were made in reliance upon the exemption provided in Section 4(2) of the Securities Act. Certificates representing such securities contain restrictive legends preventing sale, transfer or other disposition, unless registered under the Securities Act. Except as set forth above, no discount or commission was paid in connection with the foregoing issuances.

ITEM 6 MANAGEMENT'S DISCUSSION AND ANALYSIS OR PLAN OF OPERATION

The following discussion of our financial condition and results of operations should be read in conjunction with our historical financial statements and related notes appearing elsewhere in this document. This discussion contains forward-looking statements that involve significant risks and uncertainties. As a result of many factors, such as those set forth in our Cautionary Statement and elsewhere in this document, our actual results may differ materially from those anticipated in these forward-looking statements. Also, see our Cautionary Statement for a discussion of the material risks and uncertainties applicable to our business.

Overview

We are a medical device company that develops, manufactures and sells surgical ablation systems that utilize a laser energy technology platform to create precise lesions, or scars, in soft and cardiac tissue.

Our ATRILAZE™ Surgical Ablation System ("ATRILAZE System"), which has U.S. Food and Drug Administration ("FDA") 510(k) clearance for ablating soft tissue to include cardiac tissue, delivers laser energy via a hand-held wand for cardiac tissue ablation in open heart surgical procedures. Physicians see precise cardiac ablation as a potentially effective way to address cardiac arrhythmias, including atrial fibrillation ("AF"), in certain patients. AF is the most commonly occurring cardiac arrhythmia. It reduces cardiac output, is a major precursor to congestive heart failure and is associated with an increased incidence of stroke.

Our SOLAR™ Surgical Ablation System ("SOLAR System"), which has FDA 510(k) clearance for ablating soft tissue, delivers laser energy via an automated track to ablate soft tissue in various surgical settings. We intend to work with our Scientific Advisory Board to design a clinical study in support of an application to the FDA for cardiac tissue clearance of the SOLAR System; subject to an agreement with the FDA, we anticipate beginning this study in fiscal year 2008. We also anticipate developing a clinical protocol for a clinical study of the safety and effectiveness of the SOLAR System for the specific treatment of AF. As of July 2, 2007, no medical device in the U.S. had FDA approved labeling for the treatment of AF, although some companies have already begun their own clinical studies to obtain specific labeling for AF.

Our company was incorporated in Minnesota on March 30, 1992, under the name CV Dynamics, Inc. In April 1992, we acquired all of the tangible and intangible assets of Omnicor, Inc. Omnicor resulted from the corporate and financial restructuring of a predecessor company called Medical Incorporated, which was organized in 1971 to develop and market the Lillehei-Kaster heart valve, licensed from the University of Minnesota.

Until November 2004, we developed and marketed mechanical heart valves known as the Omnicarbon® 3000 and 4000 heart valves. In November 2004, after an exhaustive evaluation of the heart valve business, we discontinued all heart valve related production. In April 2005, we announced that our efforts to find a buyer for the heart valve business had been unsuccessful and that we would stop selling heart valves and were exiting the heart valve business. At that time, we determined to direct all of our resources to the development and introduction products for tissue ablation.

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 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 stock-based compensation. Actual amounts could differ significantly from management's estimates.

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, such as installation, set up or user training. There is no right of return unless the product is defective, damaged, or does not perform according to technical specifications.

Income Taxes. Deferred income tax assets and liabilities are recognized for the expected future tax consequences of events that have been included in the financial statements or tax returns. Deferred income tax assets and liabilities are determined based on differences between the financial statement and tax bases of assets and liabilities using currently enacted tax rates in effect for the years in which the differences are expected to reverse. In evaluating the ultimate realization of deferred tax assets, management considers whether it is more likely than not that the deferred income tax assets will be realized. 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. 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. As of April 30, 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 as a result of changes in ownership.

Stock-Based Compensation. On May 1, 2006, we adopted Statement of Financial Accounting Standards ("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 stock-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. 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. We have also implemented the U.S. Securities and Exchange Commission ("SEC") interpretations in Staff Accounting Bulletin ("SAB") No. 107, *Share-Based Payments*, in connection with the adoption of SFAS No. 123R.

We recognize compensation expense for stock-based awards on a straight-line basis over the requisite service period of the award. The amount of stock-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 stock-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.

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.

Recent Accounting Developments

In November 2004, the Financial Accounting Standards Board ("FASB") issued SFAS No. 151, *Inventory Costs—An Amendment of ARB No. 43, Chapter 4.* SFAS No. 151 amends the guidance in Accounting Research Bulletin ("ARB") No. 43, Chapter 4, "Inventory Pricing," to clarify the accounting for abnormal amounts of idle facility expense, freight, handling costs, and wasted material (spoilage). Among other provisions, the new rule requires that items such as idle facility expense, excessive spoilage, double freight, and rehandling costs be recognized as current-period charges if they meet the criterion of "so abnormal" as stated in ARB No. 43. Additionally, SFAS No. 151 requires that the allocation of fixed production overhead to the costs of conversion be based on the normal capacity of the production facilities. SFAS No. 151 is effective for inventory costs incurred during fiscal years beginning after June 15, 2005. The adoption of SFAS No. 151 on May 1, 2006 did not have a material impact on our financial statements.

In June 2006, the FASB issued Interpretation No. 48 ("FIN 48"), *Accounting for Uncertainty in Income Taxes—an interpretation of FASB Statement No. 109.* FIN 48 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement 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. FIN 48 is effective for fiscal years beginning after December 15, 2006. We are in the process of evaluating the impact of the adoption of FIN 48 on our financial statements for the fiscal year beginning May 1, 2007.

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 do not anticipate the adoption of SFAS No. 157 on May 1, 2008 will have a material impact on our financial statements.

In September 2006, the SEC issued SAB No. 108, *Considering the Effects of Prior Year Misstatements When Quantifying Misstatements in Current Year Financial Statements*, which provides interpretive guidance on how the effects of the carryover or reversal of prior year misstatements should be considered in quantifying a current year misstatement. The SEC staff believes that registrants should quantify errors using both a balance sheet and an income statement approach and evaluate whether either approach results in quantifying a misstatement that, when all relevant quantitative and qualitative factors are considered, is material. This pronouncement is effective for fiscal years ending after November 15, 2006. The adoption of SAB No. 108 in the fiscal year ended April 30, 2007 did not have a material impact 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 do not anticipate the adoption of SFAS No. 159 on May 1, 2008 will have a material impact on our financial statements.

Results of Operations for the Fiscal Years Ended April 30, 2007 and 2006

Sales. In November 2006, we began to recognize ATRILAZE System single-use device sales as revenue based on the determination that there exists an opportunity to sell the ATRILAZE System as a stand-alone device and to add laser wand functionality to the SOLAR System. We recognized $31,500 of ATRILAZE System single-use device sales as revenue in the fiscal year ended April 30, 2007. These sales represented sales to three medical centers. Prior to November 2006, historical sales of our ATRILAZE System 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. Sales of the SOLAR System are not expected until we conduct the full commercial launch of such product. We anticipate that product revenue for the fiscal year ending April 30, 2008 will be limited to the single-use disposable components of the ATRILAZE and SOLAR Systems.

Cost of Goods Sold. As a result of our prior strategy not to promote the sales of the ATRILAZE System, we recorded the historical cost of the ATRILAZE System inventory as a research and development expense since, at that time, it was believed to have no future economic value. As a result, the cost of goods sold in the fiscal year ended April 30, 2007 excluded the historical cost of the ATRILAZE System inventory since it was previously expensed in the fiscal year ended April 30, 2006. The cost of goods sold in the fiscal year ended April 30, 2007 represented the six percent royalty to LightWave.

Sales and Marketing. Sales and marketing expenses increased from $525,384 in the fiscal year ended April 30, 2006 to $1,426,356 in the fiscal year ended April 30, 2007. The $900,972 increase was primarily due to expanding our sales and marketing efforts in preparation for the full commercial launch of our SOLAR System. These efforts included adding headcount which resulted in $426,709 in additional payroll and related costs and additional travel and entertainment of $319,841. In addition, the fiscal year ended April 30, 2007 included $87,376 in employee stock-based compensation expense as a result of SFAS No. 123R.

General and Administrative. General and administrative expenses increased from $3,459,916 in fiscal year ended April 30, 2006 to $4,697,319 in the fiscal year ended April 30, 2007. The $1,237,403 increase was primarily due to the adoption of SFAS No. 123R. The fiscal year ended April 30, 2007 included $889,898 in stock-based compensation expense to employees and $391,783 in stock-based compensation expense to directors as a result of SFAS No. 123R.

Research and Development. Research and development expenses increased from $3,471,241 in the fiscal year ended April 30, 2006 to $6,668,929 in the fiscal year ended April 30, 2007. The $3,197,688 increase was primarily due to development of our SOLAR System. During the fiscal year ended April 30, 2007, we incurred $1,824,189 in external development of our SOLAR System's controller component compared to $526,224 in the fiscal year ended April 30, 2006. We incurred $1,622,771 and $1,078,100 in payroll expense during the fiscal years ended April 30, 2007 and 2006, respectively. During the fiscal year ended April 30, 2007, we incurred $697,837 in external development of our SOLAR System's laser component compared to $269,202 in the fiscal year ended April 30, 2006. In addition, we incurred $850,848 in materials, supplies, and temporary labor during the fiscal year ended April 30, 2007 to build pre-clinical SOLAR System prototypes to be tested as part of the development process. The fiscal year ended April 30, 2007 also included $435,258 in stock-based compensation expense to employees as a result of the adoption of SFAS No. 123R and $73,101 in stock-based compensation expense to non-employees.

Other Income (Expense). Other income (expense) in the fiscal year ended April 30, 2006 included a $16,549,457 reduction in the fair value of the putable warrants issued in connection with the 5% Series A redeemable convertible preferred stock issued on April 1, 2005, which shares were subsequently repurchased as discussed more fully in "Liquidity and Capital Resources" below.

Discontinued Operations. The loss from discontinued operations in the fiscal year ended April 30, 2007 consisted primarily of $89,782 in insurance expense from an insurance policy related to the heart valve business partially offset by $31,500 of gain on the sale of fixed assets. The loss from discontinued operations in the fiscal year ended April 30, 2006 included revenue of $338,333, cost of goods sold of $441,302, insurance expense of $92,243, bad debt expense of $24,235, and a $137,647 gain from the sale of fixed assets.

Dividends on Preferred Stock. During the fiscal year ended April 30, 2006, we repurchased outstanding shares of 5% Series A redeemable convertible preferred stock pursuant to our preferred stock

acquisition plan. Our acquisition of the redeemable convertible preferred stock resulted in a non-cash dividend of $13,579,979. In addition, cash dividends of $588,542 were paid on the redeemable convertible preferred stock during the fiscal year ended April 30, 2006. See "Liquidity and Capital Resources" below for additional information.

Income Tax Provision. We have no income tax provision in the fiscal year ended April 30, 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.

Liquidity and Capital Resources

Cash and cash equivalents decreased from $10,351,570 at April 30, 2006 to $8,950,983 at April 30, 2007 due to the following:

Net cash used by operating activities	$(10,510,576)
Net cash used by investing activities	(169,044)
Net cash provided by financing activities	9,279,033
Net decrease in cash and cash equivalents	$ (1,400,587)

Operating Activities. The net cash used by operating activities of $10,510,576 in the fiscal year ended April 30, 2007 resulted primarily from the net loss of $12,716,286 partially offset by non-cash charges of $1,877,416 related to stock-based compensation. The net cash used by operating activities of $5,859,025 in the fiscal year ended April 30, 2006 resulted primarily from the net income of $9,232,390 partially offset by non-cash charges of $16,549,457 related to the decrease in fair value of putable warrants.

Investing Activities. The net cash used by investing activities of $169,044 in the fiscal year ended April 30, 2007 resulted from purchases of property, plant and equipment of $219,712 less cash proceeds from the sales of property, plant and equipment of $50,668. The net cash used by investing activities of $3,611 in the fiscal year ended April 30, 2006 resulted from purchases of property, plant and equipment of $350,418, less cash proceeds from the sales of property, plant and equipment of $346,807.

Financing Activities. The net cash provided by financing activities of $9,279,033 in the fiscal year ended April 30, 2007 resulted primarily from the $7,411,848 in net cash proceeds obtained from the April 2007 debt financing (described below) and $2,190,000 in net cash proceeds obtained from the October 2006 equity financing (described below) partially offset by principal payments required by our related party lease obligation. The net cash provided by financing activities of $5,576,410 in the fiscal year ended April 30, 2006 resulted primarily from the $6,435,140 in net cash proceeds obtained from the December 2005 and January 2006 exercise of warrants (described below) partially offset by redeemable convertible preferred stock cash dividends and principal payments required by our related party lease obligation.

April 2007 Debt Financing. On April 20, 2007, we entered into a Secured Note Purchase Agreement with an affiliate of Whitebox Advisors, LLC ("Whitebox"), a beneficial owner of more than 10 percent of our common stock, for the issuance and sale of up to $10.0 million of secured debt in an unregistered transaction. On the same day, we issued and sold $8.0 million of 11% secured debt to Whitebox under this agreement. We also issued a five-year warrant to Whitebox for the purchase of 1,200,000 shares of common stock at $4.00 per share. This warrant, which contains a limited cashless exercise provision, has full-ratchet anti-dilution protection for a period of 12 months. Gross proceeds of $8.0 million from the initial closing were reduced by offering costs of $588,152. Whitebox had the right to purchase another $2.0 million of secured debt on the same terms (with equivalent warrant coverage) within the next 45 days. For further information regarding such right, please see "Subsequent Events" below.

The secured debt has a three-year term and has an interest rate of 11% per year. During the first year, interest will accrue and be added to the principal balance. At the end of the first year, we will issue a five-year warrant to Whitebox to purchase the number of shares equal to the quotient obtained by dividing 60% of the accrued interest owed to Whitebox for the first year by $4.00. During the second and third years, we have the option to pay interest in cash, or have the interest accrue and be added to the principal balance, on a quarterly basis. For each quarter in which we determine that the accrued interest should be added to principal, we will issue an additional five-year warrant to Whitebox to purchase the number of shares equal to the quotient obtained by dividing 60% of the accrued interest for the quarter by $4.00. Each of the interest accrual warrants will be exercisable at $4.00 per share, contain cashless exercise provisions, and have full-ratchet anti-dilution protection for a period of 12 months from each warrant's respective date of issuance.

We may prepay the note in part or in full, subject to a prepayment premium of 8% in the first year, 6% in the second year and 3% in the third year. The prepayment premium does not apply if the prepayment of the note is a result of a change of control. We also covenanted and agreed that we would not issue more than an aggregate of $12.5 million principal amount of 11% secured debt.

Whitebox is entitled to registration rights on the common stock underlying the warrant issued at the closing. No registration rights apply to common stock underlying the interest accrual warrants. If the required registration statement is not declared effective on or prior to the required effectiveness date, we have agreed to pay Whitebox an amount as liquidated damages equal to 1 percent of the value of the warrant with registration rights (measured at $4.00 per share) per month (pro-rated for any portion thereof) until such deficiency is remedied.

The impact of the April 20, 2007 closing was an increase in cash of $7,411,848, net of financing costs, an increase in debt of $8.0 million, offset by the discount created by the $3,804,000 fair value of the warrants we issued that are exercisable for 1,200,000 shares of our common stock, and an increase to additional paid-in capital of $3,524,334 to reflect the fair value of the warrants, offset by the portion of the financing costs attributable to the issuance of the warrants. The discount will be amortized into interest expense using the effective interest rate method over the term of the debt.

October 2006 Equity Financing. On October 13, 2006, pursuant to the terms of a securities purchase agreement, we issued 714,286 shares of common stock and warrants for the purchase of an aggregate of 178,571 shares of common stock to accredited investors. Gross proceeds of $2.5 million from the private placement were reduced by offering costs of $310,000 resulting in $2,190,000 of net proceeds. The warrants, which have an exercise period of five years, had an initial exercise price of $4.365 per share, subject to basic and, for 9 months, full-ratchet anti-dilution adjustments. As a result of anti-dilution adjustments through April 30, 2007, the warrants have an exercise price of $4.00 per share.

In connection with the securities purchase agreement, we granted the investors a 12-month right of participation in subsequent financings. We agreed not to create or authorize certain senior securities or undertake a reverse or forward stock split or reclassification, without the consent of the purchasers of a majority of the shares, for 18 months. We also agreed not to enter into any variable rate transactions for 18 months. The investors in the October 2006 equity financing waived their rights to participate in the April 2007 debt financing described above; however, such investors elected to participate in the June 2007 debt financing described in "Subsequent Events" below.

In addition, we entered into a registration rights agreement which required us to file a registration statement to register for resale the shares of common stock issued in the transaction and the shares of common stock issuable upon exercise of the warrants. We filed such registration statement on November 17, 2006 and it was declared effective on November 30, 2006.

If the registration statement ceases to be effective for more than an aggregate of 75 calendar days in any 12-month period, we have agreed to pay each holder an amount as liquidated damages equal to 1.5 percent of the aggregate investment amount then held by the holder of the shares purchased pursuant to the securities purchase agreement and on each monthly anniversary of the failure to effect such registration, provided however that such liquidated damages will not exceed 10 percent of the aggregate purchase price paid by all holders. We are required to use our commercially reasonable efforts to keep the registration statement effective until all registered securities covered by the registration statement have been sold or may be sold without volume restrictions pursuant to Rule 144(k). Given our company's history of maintaining the effectiveness of its registration statements, an accrual for potential liquidated damages is not necessary.

In addition, if the registration statement permitting the resale of the shares issuable upon the exercise of the warrants is required to be effective but is not then effective or the prospectus forming a part thereof is not then available for the resale of the shares, then each warrant allows the holder to convert the warrants into common stock without any cash consideration in exchange for the surrender of the remaining shares of common stock otherwise purchasable upon the exercise of the warrant.

December 2005 and January 2006 Purchase of Preferred Stock and Exercise of Warrants. In December 2005, holders of a majority of the then-outstanding shares of preferred stock authorized us to proceed with a preferred stock acquisition plan. Pursuant to such plan, on December 21, 2005, we entered into preferred stock acquisition agreements with the holders of an aggregate of 1,499 shares of preferred stock. Under the agreements, we acquired the preferred stock of each such holder in consideration of the issuance 3,077 shares of common stock for each share of preferred stock being acquired. On January 6, 2006, under the same form of preferred stock acquisition agreements, we acquired an additional 271 shares of preferred stock, representing all of the remaining then-outstanding shares of our preferred stock, for the same per share consideration. In the aggregate, we issued 5,447,814 shares of common stock in consideration of the acquisition of 1,770 shares of preferred stock. We originally sold 1,803 shares of preferred stock. The 33 shares of preferred stock not purchased in December 2005 or January 2006 were converted between June 2005 and October 2005 into shares of common stock at a conversion ratio of 2,000 shares of common stock for each share of preferred stock.

Also on December 21, 2005, we and holders of a majority of the outstanding shares of preferred stock and related common stock purchase warrants entered into an amendment to the securities purchase agreement dated April 1, 2005, to revise certain definitions contained therein. Following such amendment, on December 21, 2005, we and each of the holders who originally agreed to sell preferred stock to our company entered into amendments to such holders' warrants issued under the securities purchase agreement. Pursuant to these amendments, we (1) reduced the exercise price on outstanding warrants for the purchase of an aggregate of 2,296,950 shares of common stock held by such persons from $5.00 per share to $3.25 per share, and (2) accelerated the expiration date of such warrants from April 1, 2010, to January 6, 2006. Concurrent with such warrant amendments, investors delivered warrant exercise notices to our company. We authorized one of such warrants, namely the warrant for the purchase of 445,200 shares held by PKM Properties, LLC ("PKM"), an entity controlled by Paul K. Miller, one of our directors and one of the largest beneficial owners of our securities, to be exercised on a net exercise basis (using a market price of $6.60 per share).

On January 6, 2006, under the same form of amended warrant agreements, investors exercised warrants for the purchase of 423,050 shares of common stock. We authorized one of such warrants, namely the warrant for the purchase of 151,200 shares held by Peter L. Hauser, a beneficial owner of more than 5 percent of our common stock, to be exercised on a net exercise basis (using a market price of $6.60 per share).

In the aggregate, we issued 2,411,567 shares of common stock in connection with the exercises by investors of investor warrants issued in our April 2005 private placement. We also issued an additional 14,750 shares of common stock in connection with exercises of warrants originally issued to our agent and finder in our April 2005 private placement.

Also on January 6, 2006, pursuant to exercise notices dated January 5, 2006, we issued shares of common stock upon the exercise of certain other warrants. In particular, holders of warrants for the purchase of an aggregate of 107,850 shares of common stock, which were originally issued to our placement agent in our April 2005 financing, were exercised. Of such number, warrants for the purchase of 1,500 shares were exercised for cash and warrants for the purchase of 106,350 shares were exercised on a net exercise basis, resulting in the issuance of 75,974 shares of common stock. Also effective January 6, 2006, we amended the outstanding finder warrant for the purchase of 40,996 shares of common stock to adjust the exercise price to $3.25 per share and eliminate the right to put the warrant to us for cash in an amount equal to the fair value of the warrant in the event of a fundamental transaction.

The net effect of the December 2005 and January 2006 transactions in the fiscal year ended April 30, 2006 was to increase cash by $6,435,140 (net of expenses of $471,435), decrease the warrant liability associated with the warrants containing a put feature by $18,188,082, increase common stock and additional paid-in capital by $31,458,271, increase non-cash dividends on preferred stock by $13,579,979 because of the change in the number of common shares issued upon acquisition of the preferred stock, and increase other income by $6,744,930. The outstanding shares of common stock were increased by 7,951,605 shares.

Analysis

We expect to continue to incur operating losses and negative operating cash flow as we support the continued development and commence full commercial launch of our SOLAR System. We did not have any clinical-ready SOLAR System inventory at April 30, 2007. Once we have qualified, built, and released clinical-ready SOLAR System inventory, we anticipate that we will require several additional weeks to place the capital equipment in hospitals and train physicians on the use of our SOLAR System before we can commence the full commercial launch of such product. During fiscal year 2008, we plan to validate our technology, collect data, submit for expanded labeling, and submit clinical results for presentation and publication. We do not expect to generate material sales of the SOLAR System until fiscal year 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. 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 fiscal year ending April 30, 2008, we expect to incur capital expenditures aggregating approximately $200,000, including approximately $100,000 for facility and building improvements and approximately $100,000 for equipment. We anticipate using our available cash to fund such capital expenditures. Our cash balance of $8,950,983 at April 30, 2007, and subsequent debt financing discussed below in "Subsequent Events," is expected to last through April 2008.

Given the level of our capital resources, we expect to require additional financing to continue operations, to complete the full commercial launch of our SOLAR System, and to achieve our long-term goal of providing a 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. If financing is not available to us when necessary, we will be required to cease operating.

Our ability to fund continued operations 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 you 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 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 $12.5 million of 11% secured debt in April and June 2007. Because we are contractually precluded from issuing additional 11% secured debt, 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;
- 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.

Subsequent Events

On June 15, 2007, we entered into a Secured Note Purchase Agreement with an affiliate of Whitebox Advisors, LLC ("Whitebox"), a beneficial owner of more than 10 percent of our common stock, Potomac Capital Management, LLC, a beneficial owner of more than 5 percent of our common stock, and other certain accredited investors for the issuance and sale of an aggregate of $4.5 million of 11% secured debt in an unregistered transaction. Under this agreement, Whitebox purchased the $2.0 million note it originally had a right to purchase pursuant to an agreement dated April 20, 2007. Such debt is secured by substantially all of our assets. At closing each investor received a five-year warrant to purchase a number of shares of our common stock equal to 60% of the principal amount invested by such investor divided by $4.00. The warrants have a limited cashless exercise provision, an exercise price of $4.00 per share and full-ratchet anti-dilution protection for a period of 12 months. If we are not permitted to register for resale all of the shares underlying these warrants and the warrant issued at the initial closing, the excluded portion of such warrants will be exercisable on a cashless basis.

The secured debt has a three-year term and has an interest rate of 11% per year. During the first year, interest will accrue and be added to the principal balance. At the end of the first year, we will issue a five-year warrant to each investor to purchase the number of shares equal to the quotient obtained by dividing 60% of the accrued interest owed to that investor for the first year by $4.00. During the second and third

years, we have the option to pay interest in cash, or have the interest accrue and be added to the principal balance, on a quarterly basis. For each quarter in which we determine that the accrued interest should be added to principal, we will issue an additional five-year warrants to purchase the number of shares equal to the quotient obtained by dividing 60% of the accrued interest for the quarter by $4.00. Each of the interest accrual warrants will be exercisable at $4.00 per share, contain cashless exercise provisions, and have full-ratchet anti-dilution protection for a period of 12 months from each warrant's respective date of issuance.

We may prepay the notes in part or in full, subject to a prepayment premium of 8% in the first year, 6% in the second year and 3% in the third year. The prepayment premium does not apply if the prepayment is a result of a change of control. We also covenanted and agreed that we would not issue any additional 11% secured debt.

The investors are entitled to registration rights on the common stock underlying the warrants issued at the closing. No registration rights apply to common stock underlying the interest accrual warrants. If the required registration statement is not declared effective on or prior to the required effectiveness date, we have agreed to pay the investors an amount as liquidated damages equal to 1 percent of the value of the warrants with registration rights (measured at $4.00 per share) per month (pro-rated for any portion thereof) until such deficiency is remedied.

In addition, on June 15, 2007, we entered into an amendment to our purchase agreement with Whitebox dated April 20, 2007, and an amendment to our warrant agreement with Whitebox dated April 20, 2007. Such amendments were designated to (1) clarify that the initial closing warrant has a cashless right as to any shares the SEC does not permit us to include in the resale registration statement, (2) clarify that any reductions imposed by the SEC in the number of shares covered by the resale registration statement will be made on a pro-rata basis, (3) include a 9.99% limitation on exercise in the initial closing warrant and the interest accrual warrants, and (4) clarify that the interest accrual warrants will have cashless exercise provisions.

At closing of our $4.5 million secured debt issuance on June 15, 2007, we received cash proceeds of $4,230,000 after payment of a 6 percent commission to our placement agent. We also agreed to pay certain additional expenses incurred by Whitebox and the placement agent associated with this transaction.

On June 28, 2007, we entered into an amendment to the employment agreement of Eapen Chacko, 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 will terminate on September 15, 2007. Subject to the conditions set forth in the amendment, Mr. Chacko's compensation and benefits will continue to be paid under the employment agreement at their current rates through his termination date. Except for the severance described below, Mr. Chacko is no longer eligible for bonus or other incentive compensation. Subject to the conditions set forth in the amendment, Mr. Chacko may receive severance payments aggregating up to $200,000 under his employment agreement. In addition to these severance payments, we have agreed to pay or reimburse Mr. Chacko for medical (COBRA) benefits. The amendment further provides for a mutual release of claims and other terms and conditions customary for agreements of this nature.

Commitments and Contingent Liabilities

Related Party Lease Obligation. On April 4, 2003, we sold our building and surrounding land in Inver Grove Heights, Minnesota, to PKM Properties, LLC ("PKM"), an entity controlled by Paul K. Miller. Mr. Miller is one of our directors and one of the largest beneficial owners of our securities. In connection with the transaction, we received total consideration of $3,836,105 consisting of (1) $1.0 million in cash, (2) PKM's assumption of our $2.5 million outstanding indebtedness to Associated Bank, and (3) PKM's assumption of our promissory note with Dakota Electric Association and land special assessments payable to Dakota County aggregating $336,105.

Simultaneous with the sale of the facility, we entered into a lease with PKM to lease back the building and a portion of the land. 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 pay 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, relating to the 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 paid LightWave an initial standstill payment consisting of 1,500 shares of our common stock, $10,000 upon closing and an additional $30,000 to LightWave in installments in 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 $1.5 million 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 common stock at $14.60 per share and, during fiscal year 2005, a warrant for the purchase of 2,500 shares of 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 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 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 have agreed to make payments to LightWave for ten years equal to six percent of net sales of such product in countries in which we obtain patent protection, including the U.S., and four percent of net sales of such product in countries in which there is no patent protection. The payments are due within 60 days following each fiscal quarter. Commencing with the second year following the first commercial sale of our ATRILAZE System single-use device on November 29, 2005, we have agreed to make minimum annual payments as follows:

Annual Period Ending	Minimum Annual Payment
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	$2,325,000

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 agreed to use our reasonable commercial efforts to commercialize the technology within three years following the acquisition of the technology from LightWave.

If we fail in any year to pay minimum annual payments, we may be obligated to grant LightWave a nonexclusive right to use the technology acquired from LightWave, or pay LightWave the difference

between payments actually made and minimum payments due for a given year. If we determine to discontinue the development or marketing of the product, we would have no further obligation to pay amounts due to LightWave. However, LightWave may, upon written request, obtain from us a license to use the intellectual property or, at our option, we may assign the 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 the 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 will 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.

Trademark Opposition. The U.S. Patent and Trademark Office granted an extension of time to another company until August 1, 2007 to oppose our SOLAR trademark. As of July 16, 2007, we have not received any notice that a formal opposition has been instituted.

Severance Contingencies. Employment agreements with six officers as of April 30, 2007 contain a provision for lump sum payments of up to twelve months severance if the officer is terminated without cause by us or for good reason by the officer (as defined in the agreements).

The following table summarizes our contractual obligations as of April 30, 2007, excluding product liability contingencies, potential trademark opposition, and severance contingencies, as described above:

	Payments Due By Period			
Summary of Contractual Obligations	TOTAL	Less than One Year	Two to Three Years	Four or More Years
Related Party Secured Promissory Note(1)	$11,032,339	$ —	$11,032,339	$ —
Related Party Lease Obligation(2)(3)	2,481,690	430,424	865,966	1,185,300
LightWave Minimum Payments(4)	2,325,000	50,000	175,000	2,100,000
Operating Lease(3)	17,050	5,530	11,060	460
Total Contractual Obligations	$15,856,079	$485,954	$12,084,365	$3,285,760

(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 note.

(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 $1.5 million of cumulative gross sales of our ATRILAZE System single-use devices.

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 conditions, 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 SOLAR System. Sales of our SOLAR System are not expected until we conduct the full commercial launch of such product. We expect that any 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 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.

Cautionary Statement

Investing in our common stock involves a high degree of risk. You should consider carefully the risks described below and the other information in this document, including our financial statements and the related notes included elsewhere in this document, before deciding to invest in our common stock. If any of the following risks actually occur, they may materially harm our business, financial condition, operating results and cash flows. In this event, the market price of our common stock could decline, and you could lose part or all of your investment.

We have a history of losses and no assurance of future profitability. We have incurred operating losses and negative cash flows from operations in recent years. We had a net loss to common shareholders of $12,716,286 for the fiscal year ended April 30, 2007 and a net loss to common shareholders of $4,936,131 for the fiscal year ended April 30, 2006. As of April 30, 2007, we had an accumulated deficit of $60,059,374. We expect to continue to incur operating losses and negative operating cash flow as we support the continued development and commence full commercial launch of our SOLAR System. In addition, the report of our independent registered public accounting firm for each of the fiscal years 2007 and 2006 includes an explanatory paragraph expressing substantial doubt about our ability to continue as a going concern.

We expect to continue to incur operating losses and negative operating cash flow as we support the finalization of development and full commercial launch of our SOLAR System. We did not have any clinical-ready SOLAR System inventory at April 30, 2007. Once we have qualified, built, and released clinical-ready SOLAR System inventory, we anticipate that we will require several additional weeks to place the capital equipment in hospitals and train physicians on the use of our SOLAR System before we can initiate the commercial launch of such product. Furthermore, we initially expect to generate SOLAR System revenue only from single-use disposable device sales. We do not expect to generate material sales of the SOLAR System until the fiscal year ending April 30, 2009 at the earliest. Even if we begin to generate revenue from our SOLAR System, it may be several years, if ever, before we achieve profitability and positive cash flow. If we do achieve profitability, we cannot assure you that we would be able to sustain or increase profitability on a quarterly or annual basis in the future.

Substantially all of our assets are pledged to our lenders and subject to risk of loss. In connection with the secured note transactions entered into in April and June 2007, substantially all of our assets were pledged to secure our indebtedness to an affiliate of Whitebox Advisors, LLC ("Whitebox"), a beneficial owner of more than 10 percent of our common stock, Potomac Capital Management, LLC ("Potomac"), a beneficial owner of more than 5 percent of our common stock, and certain other accredited investors. As of July 2, 2007, we had $12.5 million principal amount of 11% secured notes outstanding. If we default under the terms of our agreements with these note holders, or if we are unable to repay our indebtedness to them when each secured note becomes due between April and June 2010, the note holders may elect to exercise their right as secured creditors, which may include foreclosing upon and causing the sale of our assets. If such event should occur, it would likely result in the termination of our business operations.

We will require additional financing to execute upon our business plan, which may be difficult to obtain. Given our existing capital resources, we expect to seek additional financing to continue operations, to complete the full commercial launch of our SOLAR System, and to achieve our long-term goal of providing a stand-alone, closed chest, beating heart, minimally invasive 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 additional indebtedness. If financing is not available to us when necessary, we will be required to cease operations. Given that our 11% secured notes are secured by substantially all of our assets, upon a default in our obligations under such debt, Whitebox and Potomac, as related parties, and the other secured creditors would control substantially all of our assets, which represent mainly intellectual property, and would likely look to recover their investment through an asset sale.

Our ability to fund continued operations 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 you 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 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 $12.5 million of 11% secured debt in April and June 2007. Because we are contractually precluded from issuing additional 11% secured debt, 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.

We expect to derive substantially all of our future revenue from sales of our tissue ablation systems. If our ATRILAZE and SOLAR Systems fail to gain market acceptance, we may not generate sufficient revenue to continue our operations. Currently, our ATRILAZE System single-use disposable devices account for all of our revenue and we have yet to complete the full commercial launch of our SOLAR System. Although we do not expect to generate material sales of our SOLAR System until the fiscal year ending April 30, 2009 at the earliest, we expect that sales of our ATRILAZE and SOLAR Systems will account for substantially all of our revenue for the foreseeable future. Our future revenue will depend on the increasing acceptance by the medical community of our systems as a standard treatment alternative for the surgical treatment of AF during open-heart surgical procedures and as a stand-alone minimally invasive procedure.

Acceptance of our systems for the treatment of AF is dependent upon, among other factors, the level of screening for AF and the awareness and education of the medical community about the surgical treatment of AF, in general, and the existence, safety and, in particular, the effectiveness of our ATRILAZE and SOLAR Systems. Our systems and the procedures involved with the tissue ablation using

our systems are relatively new. We cannot assure you that doctors will use our systems, that demand for the surgical treatment of AF will not decline or that such demand will increase as quickly as we expect.

We may not be able to maintain or increase market acceptance of our ATRILAZE and SOLAR Systems for a number of additional reasons, including:

- Our inability to promote our SOLAR System for use on cardiac tissue or for the use of any of our products for the treatment of arrhythmias, including AF, until we obtain additional FDA approvals or clearances;
- Our inability to train doctors in the use of our SOLAR System for the ablation of cardiac tissue or for the use of any of our products for the treatment of arrhythmias, including AF, until we obtain additional FDA approvals or clearances;
- Our inability to sustain acceptance of our systems within the medical community;
- Liability risks for doctors and hospitals associated with the off-label use of our systems and the use of new technologies or procedures;
- Findings or perceptions relating to the safety or effectiveness of our systems or the safety or effectiveness of the surgical treatment of AF;
- Medical device reports to the FDA and foreign regulatory authorities, which are required in the event our products malfunction or cause or contribute to a death, serious injury or other adverse event;
- Publicity concerning our systems, competing products or the surgical treatment of AF;
- The cost of our systems;
- The availability of alternative treatments or procedures that may be, or may be perceived as, more effective, safer, faster, easier to use or less costly than our systems; and
- Policies of healthcare payors with respect to coverage and reimbursement.

Since we do not believe that doctors are using our ATRILAZE System, which represented our sole source of revenue for the fiscal year ended April 30, 2007, for any purpose other than the surgical treatment of AF, if doctors do not use our systems to treat AF, our business, financial condition, operating results and cash flows could be materially adversely affected.

We believe that stand-alone minimally invasive treatment for AF, which is not currently a well established market, will ultimately represent the largest segment of the market for the surgical treatment of AF. Use of our SOLAR System in this market represents our major growth opportunity. If this market fails to further develop, or if our SOLAR System is not widely adopted for use in this market, it would adversely impact our ability to grow our revenue. In order to further establish the stand-alone minimally invasive AF treatment market, cardiologists treating patients with AF who would not otherwise require an open-heart surgical procedure must change their current practice of referring patients to electrophysiologists and instead refer these patients to cardiothoracic surgeons for surgical AF treatment. Doctors may decide not to change their referral patterns for a variety of reasons including, for example, negative publicity relating to ongoing clinical studies, including publicity focusing on the doctors and institutions carrying out such clinical studies, that limited clinical data is available relating to the safety and effectiveness of our SOLAR System, that doctors who refer their patients to cardiothoracic surgeons may risk losing their patients and that doctors may prefer to treat patients using drugs or catheter-based ablation. If doctors do not refer their patients to cardiothoracic surgeons for surgical AF treatment, we will not be able to establish a market for the use of our SOLAR System for the stand-alone minimally invasive treatment of AF, and our future growth and revenue will suffer.

We have limited manufacturing capabilities and manufacturing personnel, and if we are unable to provide an adequate supply of single-use disposables, our growth could be limited and our business could be harmed. We currently manufacture single-use disposables for our SOLAR System prototype at our facilities in the Twin Cities. If there were a disruption to our manufacturing operations, we would have no other means of manufacturing our disposable devices until we had restored and re-qualified our manufacturing capability at our facilities or developed alternative manufacturing capabilities. Additionally, any damage to or destruction of our facilities or our equipment, prolonged power outage or contamination at our facility would significantly impair our ability to produce our disposable devices. If we were unable to produce sufficient quantities for use in our current and planned clinical trials, or if our manufacturing process were to produce a substandard yield, completion of our clinical trials and commercialization efforts would be delayed. To produce single-use disposables for our SOLAR System in the quantities that we believe will be required to meet anticipated market demand in the U.S., we will need to increase, or "scale up," the production process by a significant factor over the current level of production. There are technical challenges to scaling up manufacturing capacity, and developing commercial-scale manufacturing facilities would require the investment of substantial additional funds and hiring and retaining additional management and technical personnel who have the necessary manufacturing experience. We may not successfully complete any required scale up in a timely manner, or at all, due to such technical difficulties and/or insufficient funds. If we are unable to do so, we may not be able to produce single-use disposables for our SOLAR System in sufficient quantities to meet the requirements for the full commercial launch of such product in the U.S. If we are unable to manufacture a sufficient supply of single-use disposables for our SOLAR System, our business and financial prospects would be materially adversely affected. In addition, if the scaled up production process is not efficient or produces single-use disposables for our SOLAR System that do not meet quality and other standards, our future gross margins, if any, will be adversely affected.

We depend upon single and limited source third-party suppliers, making us vulnerable to supply problems and price fluctuations, which could harm our business. We rely on single and limited source third-party vendors for the manufacture of many of the components used in our surgical ablation systems. There are relatively few worldwide suppliers of medical lasers in our chosen wavelength that have robust, reproducible designs that meet customer and regulatory requirements. Even as we work with these suppliers to overcome these limitations, and as we commit to a primary supplier, there can be no assurance that we can obtain these lasers on terms that are not significantly more costly than currently contemplated. Our proprietary controller device has been developed working with an experienced outside resource, but its ability to produce the product in sufficient quantities has not been demonstrated.

Our reliance on these outside manufacturers and suppliers also subjects us to risks that could harm our business, including:

- We may not be able to obtain adequate supply in a timely manner or on commercially reasonable terms;
- We may have difficulty locating and qualifying alternative suppliers;
- Switching components may require product redesign;
- Our suppliers manufacture products for a range of customers, and fluctuations in demand for the products those suppliers manufacture for others may affect their ability to deliver components to us in a timely manner; and
- Our suppliers may encounter financial hardships unrelated to our demand for components, which could inhibit their ability to fulfill our orders and meet our requirements.

Furthermore, if our third party vendors fail to comply with extensive FDA regulations relating to the manufacture of our products or any component part, we may be subject to fines, injunctions and penalties, and our ability to commercially distribute and sell our products may be harmed.

Any interruption or delay in the supply of components or materials, or our inability to obtain components or materials from alternate sources at acceptable prices in a timely manner, could impair our ability to meet the demand of our customers and cause them to cancel orders or switch to competitive products, and could therefore have a material adverse effect on our business, financial condition, operating results and cash flows.

Unless we obtain additional FDA approvals or clearances, we will not be able to promote our ATRILAZE or SOLAR Systems to treat AF or, with the exception of our ARTILAZE System, to ablate cardiac tissue, and our ability to maintain and grow our business could be harmed. Generally, a medical device company must first obtain either FDA clearance through the submission to the FDA of a 510(k) premarket notification or FDA approval through the submission of a Premarket Approval, or PMA, before a company may market a medical device in the U.S. Certain modifications to a previously marketed device, including a proposed new use or new indication for the device, also require the submission to the FDA of either a 510(k) or PMA before such device with the modifications may be marketed. The process of obtaining these clearances and approvals can be lengthy and expensive. The PMA process is more costly, lengthy and uncertain than the 510(k) process and requires that the device be found to be safe and effective and must be supported by extensive data, including data from preclinical studies and human clinical trials. Though less likely, a 510(k) application may require human clinical studies as well. Because we cannot assure you that any new products, or any product enhancements, that we develop will be subject to the shorter 510(k) clearance process, significant delays in the introduction of any new products or product enhancements may occur.

We have not received FDA clearance or approval to promote our SOLAR System for the ablation of cardiac tissue or for the use of our ATRILAZE or SOLAR Systems in the treatment of AF. Obtaining FDA labeling for our SOLAR System to be used for the stand-alone treatment of AF, which is our long-term corporate goal, will require a lengthy and costly clinical trial. We cannot assure you that either system will prove to be a safe and effective treatment option or that the FDA will expand the labeling for the specific indication of AF. If the labeling is not expanded, our future revenue and earnings growth will be materially affected.

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 provide information or train physicians on the use of our systems in connection with such uses.

We cannot assure you that future clearances or approvals of our systems will be granted or that current or future clearances or approvals of our systems will not be withdrawn. Failure to obtain a clearance or approval, or loss of an existing clearance or approval, could hurt our ability to maintain and grow our business.

Unless we are able to complete the clinical trials required to support future submissions to the FDA, and unless the data generated by such trials supports the use of our systems for the treatment of AF as safe and effective, we may not be able to secure additional FDA clearances or approvals and our ability to maintain and grow our business could be harmed. In order to obtain FDA approvals to promote our ATRILAZE and SOLAR Systems for the treatment of AF, we will need to demonstrate in clinical trials that our systems are safe and effective for such use. In order to conduct clinical trials, it is necessary to receive an investigational device exemption, or IDE, from the FDA. Once an IDE has been obtained, the FDA or institutional review boards, or IRBs, that also oversee the trials for the purpose of protecting the

study subjects, can halt clinical trials at any time for safety reasons or because we or any of our clinical investigators do not follow the FDA's requirements for conducting clinical trials. In addition, the FDA may modify its requirements with respect to various aspects of clinical studies, in which case ongoing clinical trials may not be achievable. Moreover, future clinical trials of our SOLAR System to treat AF as a stand-alone minimally invasive procedure will likely proceed in phases beginning with a feasibility trial. We cannot assure you that the FDA will grant us approval to conduct a feasibility study or clinical trials. If we are unable to receive approval to conduct a feasibility study or clinical trials, or the trials are halted by the FDA or others, we would not be able to promote our SOLAR System for use in the treatment of AF in the U.S.

Clinical trials and regulatory approval of our systems for the treatment of AF can take a number of years to accomplish and require the expenditure of substantial financial, managerial and other resources, and we may never obtain regulatory approval for the use of our systems to treat AF in either open-heart procedures or stand-alone minimally invasive procedures. Even if we obtain such regulatory approval, the FDA may not grant approval to use our systems for the treatment of AF in all types of patients that experience AF, or could limit the type of AF that could be treated using our systems. If we do not secure required FDA approval to promote our systems for either or both types of procedures, or such approval is limited to certain patients or certain types of AF, our business and financial prospects would be negatively affected.

Further, we cannot make comparative claims regarding the use of our systems against any alternative treatments without conducting comparative clinical studies, which would be expensive and time consuming. We do not have any current plans to conduct such comparative clinical studies to evaluate our systems against any alternative method of treatment.

If the results obtained from our clinical trials, any other clinical studies, or clinical or commercial experience indicate that our systems are not safe or effective, or not as safe or effective as other treatment options, the FDA may not approve our systems for the treatment of AF, adoption of the use of our systems for the treatment of AF may suffer and our business would be harmed.

Initial uses of our systems may be "off-label" in the U.S. Our business and financial prospects depend on the use of our ATRILAZE and SOLAR Systems in the treatment of cardiac arrhythmias, including AF, which is considered an "off-label" use because our devices are not currently indicated for the treatment of cardiac arrhythmias. Under the Federal Food, Drug, and Cosmetic Act and other laws, we are prohibited from promoting our products, including our SOLAR System, for off-label uses. This means that we cannot make claims about the safety or effectiveness of our systems for the ablation of cardiac tissue, except with respect our ATRILAZE System, or the treatment of AF and cannot proactively discuss or provide information on the use of our system for the treatment of AF, except in certain limited scientific and other settings. As of July 2, 2007, no medical device in the U.S. had FDA approved labeling for the treatment of AF, although some companies have already begun their own clinical studies to obtain specific labeling for AF. While we cannot promote our devices for these specific uses, physicians in the "practice of medicine" can and do lawfully employ them for off-label uses.

Due to these regulatory constraints, our sales and marketing efforts will focus only on the general technical attributes and benefits of our ATRILAZE and SOLAR Systems and not on the use of our systems for AF treatment or other cardiac uses, with the exception of our ATRILAZE System which we may promote for the ablation of cardiac tissue. Sales personnel call on cardiothoracic surgeons, electrophysiologists, and other doctors to discuss the general attributes of our systems and respond in a non-promotional manner to unsolicited requests for information from doctors on the use of our systems in all types of surgical ablation procedures. We also have entered into consulting agreements with prominent cardiothoracic surgeons who assist us with, among other things, product development and clinical development. While we work with outside regulatory counsel to comply with the law, there is a risk that the

FDA or some other federal or state law enforcement authority will differ with our interpretation of the law regarding the promotion of products. This is particularly true when the issue is one of interpreting when communication about off-label uses is considered lawful scientific exchange and when it is considered promotion.

Government investigations concerning the promotion of off-label uses and related issues are typically expensive, disruptive, burdensome and generate negative publicity. If our promotional activities are found to be in violation of the law or if we agree to a settlement in connection with an enforcement action, we would likely face significant fines and penalties and would likely be required to change substantially our sales, promotional and educational activities. There is also a possibility that we could be enjoined from selling our systems for any non-FDA-approved use until we receive FDA clearances or approval, if ever. In addition, as a result of enforcement actions against us or our officers, we could be excluded from participation in government healthcare programs such as Medicare and Medicaid.

Widespread adoption of our systems for the treatment of cardiac arrhythmias, including AF, may not be possible unless we are able to achieve such labeling in the U.S., which would, as noted above, require a lengthy and costly clinical trial.

We have limited short-term data regarding the safety and efficacy of our systems. Any long-term data that is generated may not be positive or consistent with our limited short-term data, which would affect the rate at which our systems are adopted by the medical community. Our success depends upon the increasing acceptance of our systems by the medical community as safe and effective in the treatment of AF. Serious complications, including death, have been encountered in connection with the surgical treatment of AF, including in connection with a limited number of stand-alone minimally invasive procedures. Important factors upon which the efficacy of our systems will be measured include long-term data on the number of patients that continue to experience AF following treatment with our systems and the number of patients that have serious complications resulting from AF treatment using our systems. We cannot provide any assurance that the data collected during our clinical trials will be compelling to the medical community or to the FDA, because it may not be scientifically meaningful and may not demonstrate that our systems are an attractive procedure when compared against data from alternative procedures and products. In addition, the long-term effects of ablation procedures, whatever the energy source, are not generally known.

Even if we believe the data collected from clinical studies or clinical experience indicates positive results, each doctor's actual experience with our systems may vary. Our limited short-term data is based upon procedures performed by doctors who are technically proficient. Consequently, this data may be significantly more favorable than typical results from the broader physician population, which could negatively impact rates of adoption of our systems.

The use of our products may result in injuries or other adverse events that lead to product liability suits, which could be costly to our business or our customers' business. The use of our products may result in a variety of serious complications, including damage to the heart and adjacent structures, internal bleeding, death, or other adverse events, potentially leading to product liability claims. Serious complications, including death, have been encountered in connection with both the surgical and catheter-based treatment of AF. Although our manufacturing processes and those of our suppliers are required to comply with the FDA's quality system regulations, or QSR, covering the procedures and documentation of the design, testing, production, control, quality assurance, labeling, packaging, storage and shipping of our products, if products we sell are defectively designed, manufactured or labeled, contain inadequate warnings, contain defective components or are misused, we may become subject to costly litigation by our customers or their patients.

We carry product liability insurance that is limited in scope and amount and may not be adequate to fully protect us against product liability claims. We could be required to pay damages that exceed our

insurance coverage. Any product liability claim, with or without merit, could result in an increase in our product liability insurance rates or our inability to secure coverage on reasonable terms, if at all. Even in the absence of a claim, our insurance rates may rise in the future. Any product liability claim, even a meritless or unsuccessful one, would be time consuming and expensive to defend and could result in the diversion of our management's attention from our business and result in adverse publicity, withdrawal of clinical trial volunteers, injury to our reputation and loss of revenue. Any of these events could negatively affect our financial condition.

Serious complications arising out of surgical procedures for the treatment of AF, including surgical AF treatments involving our systems, could harm our business in a variety of important ways. Serious complications, including death, have been encountered in connection with the surgical treatment of AF, including in connection with a limited number of stand-alone minimally invasive procedures. The rate of serious complications associated with surgical AF treatments in general, or surgical AF treatments involving the use of our systems in particular, may be greater than the rate of serious complications associated with alternative therapies for the treatment of AF or AF itself.

Adverse outcomes, or the perception that surgical AF treatments, including treatments involving the use of our systems, are not safe, could harm our business, in, among others, the following ways:

- Our systems may fail to gain or may lose market acceptance;
- The market for the stand-alone minimally invasive treatment of AF may fail to further develop;
- The medical community may fail to further adopt our systems for the stand-alone minimally invasive treatment of AF;
- The FDA may revoke the clearances or approvals they have granted for the use of our systems for the ablation of soft tissue;
- The FDA or foreign regulatory authorities may refuse, delay or revoke clearances, approvals or clinical trials of our systems for the ablation of cardiac tissue or the treatment of AF; and
- The FDA or other domestic or foreign regulatory or enforcement authorities may be more likely than otherwise to pursue an action against us for promoting our products for off-label uses.

We may be subject to fines, penalties or injunctions if we are determined to be promoting our products for unapproved, "off-label," or new uses, or making false, misleading or unsubstantiated claims, which would harm our operating results. Our promotional materials and training methods for physicians must be in compliance with FDA and other applicable regulations. FDA regulations prohibit us from training physicians, or promoting or advertising our products for uses not within the scope of our clearances and from making unsupported safety or effectiveness claims. These determinations can be subjective and the FDA may disagree with our training policies and promotional claims. If the FDA determines that our promotional materials or training constitutes promotion of an unapproved use, or makes false or misleading claims or claims not supported by adequate scientific data, the agency could subject us to serious enforcement sanctions and/or limit the promotional claims that we are permitted to make for our products. The FDA does not permit promotional claims for a device based upon physician reports and other anecdotal data. We cannot assure you, therefore, that the FDA would agree that any independent peer-reviewed studies are scientifically adequate to support the claims we make for our products. The FDA also may limit or prohibit claims based on comparison of our products with other surgical cardiac tissue ablation technologies and devices in the absence of a scientifically valid head-to-head clinical trial or other adequate supporting data. Any legal limitations on the promotional claims we may make for our products will limit the growth rate of our sales and raise the level of selling effort required to achieve those sales.

We may be subject, directly or indirectly, to federal and state healthcare fraud and abuse laws and regulations and, if we do not comply with such laws, we could face substantial penalties. Our operations may be directly or indirectly affected by various broad state and federal fraud and abuse laws, including the Anti-Kickback Statute, which prohibits any person from knowingly and willfully offering, paying, soliciting, or receiving remuneration, directly or indirectly, to induce or reward the referral of an individual for an item or service, or the ordering, furnishing or arranging of an item or service, for which payment may be made under federal healthcare programs, such as the Medicare and Medicaid programs. If our present or future practices, including consulting arrangements with physicians who use our products or our supply arrangements for capital equipment to hospitals, are found to be in violation of these laws, we or our officers may be subject to civil or criminal penalties, including large monetary penalties, damages, fines, imprisonment and exclusion from Medicare and Medicaid program participation. If such an enforcement action were to occur, our business and financial condition would be harmed. In addition, companies also have been prosecuted under the False Claims Act in connection with alleged off-label promotion of products.

We cannot assure you that our SOLAR System will gain physician acceptance. A limited number of cardiovascular surgeons and cardiologists can influence medical device selection and purchase decisions for a large portion of the target cardiovascular surgery patient population. We cannot assure you that our SOLAR System will gain any significant degree of physician acceptance, or that users will accept our SOLAR System as preferable to alternative products or methods for tissue ablation. Physician acceptance of this system depends upon a number of additional factors, many of which are beyond our control, including:

- Our success in obtaining a cardiac indication for our SOLAR System;
- Our success in extending our labeling to the treatment of AF;
- Our ability to generate follow-up clinical data on our ablation patients, demonstrating efficacy and durability of results;
- Our ability to effectively train physicians and staff on the features, benefits and safe operation of our systems;
- The increased cost of, or lack of, malpractice insurance coverage due to the use of our systems by doctors for off-label indications;
- The prevalence and severity of any side effects, including damage to adjacent organs and structures;
- The acceptable procedure time associated with the use of the system;
- Potential advantages over alternative treatments;
- The strength of marketing and distribution support; and
- Third party coverage of reimbursement.

If our SOLAR System does not achieve an adequate level of acceptance by physicians, patients or healthcare payers, we may not generate significant revenue, we may not become profitable and we may be unable to continue operating.

Our success depends on the availability and adequacy of third party reimbursement for the relevant surgical procedures. Our ability to market products successfully in the U.S. depends in part on the extent to which reimbursement for the cost of such products and related treatment will be available from government health administration authorities, private health insurers, health maintenance organizations and other third party payors.

Third-party payors are increasingly exerting pressure on medical device companies to reduce their prices. Even to the extent that physicians, in their discretion, use our products off-label in the treatment of AF, private payors and governmental payors may have adverse reimbursement policies for surgical AF treatment. This would harm our ability to promote and sell our systems. Payors continue to review their policies and can, without notice, deny coverage for treatments that include the use of our products. Because each third-party payor individually approves coverage and reimbursement, obtaining these approvals may be time-consuming and costly. In addition, third-party payors may require us to provide scientific and clinical support for the use of our systems. Alternatively, government or private payors may deem certain off-label uses like the treatment of AF utilizing our systems as experimental or not medically necessary and, as such, not provide coverage. Adverse changes in coverage and reimbursement for surgical AF treatment could harm our business and reduce our revenue.

Payors may challenge the need for, and prices of, high technology medical products such as our systems. Third party payors may deny reimbursement for procedures that they deem experimental or for devices used in ways other than as cleared by the FDA or stated in their indications for use. With respect to our products, some private payors could deny coverage until the medical profession generally accepts the devices and new procedures. The inability of hospitals and other providers to obtain reimbursement from third party payors for our products could have a material adverse impact on our business. Healthcare reform may also impact sales of new products. In the U.S. reforms may include:

- Reduction of Medicare and Medicaid reimbursements for complex procedures, such as the surgical treatment of cardiac arrhythmias, including AF;
- Controls on health care spending through limiting the growth of private health insurance premiums and Medicare and Medicaid spending; and
- Fundamental changes to the health care delivery system.

If doctors or hospitals were to receive inadequate levels of reimbursement for surgical AF treatments using our systems from governmental or other third-party payors, it could affect the adoption or use of our systems. Even if our SOLAR system receives FDA clearance or approval for the treatment of cardiac arrhythmias, including AF, widespread adoption or use of our systems by the medical community is unlikely to occur if doctors and hospitals do not receive sufficient reimbursement from payors for surgical treatment of AF using our systems. Currently, hospitals do not receive any additional reimbursement from the fee-for-service Medicare program, which is administered by the Centers for Medicare and Medicaid Services, or CMS, for the cost of AF treatment as part of an open-heart procedure. However, doctors performing AF treatment during an open-heart surgical procedure are eligible to receive separate reimbursement for performing these AF treatments. Stand-alone minimally invasive AF treatment does qualify for reimbursement from the fee-for-service Medicare program allowing both doctors and hospitals to receive reimbursement for this type of AF treatment. In addition, the Medicare program has already adopted specific hospital inpatient treatment codes describing AF treatment by ablation in stand-alone minimally invasive procedures such as that provided through the use of our systems.

Many private payors look to CMS as a guideline in setting their reimbursement policies and amounts. If CMS or other agencies decrease or limit reimbursement payments for doctors and hospitals, this may affect coverage and reimbursement determinations by many private payors. Additionally, some private payors do not follow the Medicare guidelines and those payors may reimburse only a portion of the cost of AF treatment, if any. Furthermore, for some governmental payors, such as the Medicaid program, reimbursement differs from state to state, and some state Medicaid programs may not reimburse for procedures involving our systems in an adequate amount, if at all.

We are unable to predict all changes to the coverage or reimbursement methodologies that will be employed by private or governmental third-party payors. We cannot be certain that under prospective payment systems and applicable fee schedules, such as those used by CMS and by many private healthcare payors, the cost of the procedures utilizing our systems will be adequately reimbursed or that it will receive reimbursement consistent with historical levels or at all. Any denial of private or governmental third-party payor coverage or inadequate reimbursement for procedures performed using our systems could harm our business.

If we are unable to manage our expected growth, our future revenue and operating results may be adversely affected. If we receive AF labeling for our SOLAR System, we will need to rapidly expand our sales and marketing operations, increase our clinical studies efforts, and enhance our administrative operations. This expansion is expected to place a significant strain on our management and operational and financial resources. We may not be able to attract and retain qualified medical salespeople without AF labeling. Our current and planned personnel, systems, procedures and controls may not be adequate to support our anticipated growth. To fully commercialize our SOLAR System, to manage our growth, and to fund clinical studies, we will be required to improve existing and implement new operational and financial systems, procedures and controls and expand, train and manage our employee base. If we are unable to manage our growth effectively, our business, financial condition, operating results and cash flows could be materially adversely affected.

Substantial government regulation abroad may restrict our ability to sell our surgical ablation systems or other products. If we choose to market our products in foreign countries, we must also comply with laws and regulations of foreign countries in which we market such products. In general, the extent and complexity of medical device regulation is increasing worldwide. This trend may continue, and the cost and time required to obtain marketing clearance in any given country may increase as a result. We cannot assure you that our products will obtain any necessary foreign clearances on a timely basis, or at all.

Our products face competition from those of well established companies with greater financial and marketing resources, as well as alternative therapies or treatment options. Our industry is highly competitive, subject to change, and significantly affected by new product introductions and other activities of industry participants. Many of our competitors have significantly greater financial and human resources than we do and have established reputations with our target customers, as well as worldwide distribution channels that are more established and developed than ours. Our primary competitors include AtriCure, Inc., ATS Medical, Inc., Boston Scientific Corp., Cardima, Inc., CardioFocus, Inc., CryoCath Technologies, Inc., Cryocor, Inc., ESTECH, Inc., Johnson and Johnson, Inc., Medtronic, Inc., nContact Surgical Inc., and St. Jude Medical, Inc. As of July 2, 2007, no company had received FDA labeling or clearance to market an ablation system for use as a treatment of AF in the U.S. However, our competitors provide products that have been adopted by physicians for the off-label treatment of AF. Some of them are already conducting clinical studies to obtain an AF claim, which may give them an advantage in the marketplace.

We and many of our competitors have developed surgical ablation devices that have been used to treat AF concomitant with an open-heart surgical procedure. We and our competitors utilize different technologies as energy sources for ablation devices, including cryothermy, radiofrequency, microwave, high-intensity focused ultrasound and laser. Each of these companies is also currently working with its core technology to develop devices that can be used as a stand-alone, minimally invasive AF treatment.

Because of the large number of competitors and treatment options in the AF market, we cannot assure you that we will be able to compete effectively.

We may be unable to extend and protect our proprietary rights which are critical to our success in developing products for cardiac tissue ablation and the potential treatment of AF. As of July 3, 2007, we had six issued U.S. patents, ten non-provisional U.S. patent applications, eight international (PCT) patent

applications, two European patent applications, and one each of patent applications in Australia, Canada and Japan relating to products we have designed for use in treating AF. We expect to seek patent protection for additional products that we may develop in the future. Our success will depend, in part, on our ability to protect our products and to manufacture and sell them without infringing the rights of third parties. The validity and breadth of claims covered in medical technology patents involve complex legal and factual questions and, therefore, are highly uncertain. In addition, the laws of many countries may not afford protection for our proprietary rights to the same extent as U.S. laws. We cannot assure you that:

- Any pending patent applications or any future patent applications will result in the issuance of patents;
- The scope of existing or any future patent protection will be effective to exclude competitors or to provide competitive advantages to us;
- We will be able to commercially exploit issued patents before they expire;
- Any of our patents will be held valid if subsequently challenged;
- Others will not claim rights in, or ownership of, the patents and other proprietary rights we hold;
- Our products and processes will not infringe, or be alleged to infringe, the proprietary rights of others; or
- We will be able to protect meaningful rights in proprietary technology over which we do not hold patents.

Furthermore, we cannot assure you that others have not developed or will not develop products that may duplicate our products or manufacturing processes, or that others will not design around our patents. Other parties may independently develop or otherwise acquire substantially equivalent techniques, gain access to our proprietary technology or disclose such technology. In addition, whether or not we obtain additional patents, others may hold or receive patents covering components of products we independently develop in the future.

We may be subject to claims that we infringe the intellectual property rights of third parties, which could adversely affect the sale of our products and our financial condition. The medical device industry has been characterized by extensive litigation regarding patents and other intellectual property rights. Litigation, which would likely result in substantial cost to us, may be necessary to enforce patents issued or licensed to us and/or to determine the scope and validity of others' proprietary rights. Our competitors hold issued patents which may result in claims of infringement against us or other patent litigation. We also may have to participate in interference proceedings declared by the U.S. Patent and Trademark Office, which could result in substantial cost to determine the priority of inventions.

We are aware of patents issued to our competitors and are aware that these competitors have patent applications pending. These patents and applications could become the basis for infringement claims against us. In April 2005, we received a letter from Edwards Lifesciences LLC ("Edwards") concerning our ATRILAZE System, which is the subject of some of our patents. Edwards' letter called to our attention six of its patents and requested us to comment on how our products differ from the claimed methods and apparatus of the six specified Edwards patents. We reviewed the specified Edwards' patents and discussed them with our patent counsel, and believe that our surgical ablation systems do not infringe any of these patents. In response to a further inquiry from Edwards in May 2006, we responded through patent counsel outlining our position on at least one of the Edwards' patents. While Edwards did not claim in its letter that our products infringe its patents, it is possible that in the future, Edwards or others will inquire regarding our products and patents and perhaps make intellectual property claims relating to our tissue ablation devices. Subsequent to these inquiries by Edwards, Edwards announced that it was discontinuing development and support of its laser-based ablation system in the U.S.

Legal proceedings brought against us alleging that our products infringe existing patents, whether with or without merit, could be time-consuming for our management and employees, result in costly litigation, cause product shipment delays, require us to pay damages or settlement amounts, or require us to:

- Cease manufacturing and selling the product in question, which could seriously harm our business;
- Enter into royalty-bearing licensing agreements; or
- Design commercially acceptable non-infringing alternative products.

We cannot assure you that we would be able to obtain licensing agreements, if required, on terms acceptable to us, or at all, or that we would be able to develop commercially acceptable non-infringing alternative products. Our failure to do so could have a material adverse effect upon our business, financial condition, operating results and cash flows.

Key executives could leave our company at any time, thereby adversely affecting our product development and commercialization plans. We depend heavily on the technical knowledge, physician relationships and industry expertise of our management team. The development and execution of our business plan depends upon these individuals. The departure of key people could materially and adversely affect our business, financial condition, operating results and cash flows.

We may be unable to recruit, motivate and retain qualified employees. Our success depends in part upon our ability to attract, motivate and retain a sufficient number of qualified employees, including those who concentrate in research and development, sales, marketing and manufacturing, to keep pace with our product development schedules. Qualified individuals needed to fill these positions could be in short supply in our market. Our inability to recruit, motivate and retain such individuals may delay the planned launch of new products, or result in high employee turnover; either of which could have a material adverse effect on our business, financial condition, operating results and cash flows. Additionally, competition for qualified employees could require us to pay higher wages and provide additional benefits to attract sufficient employees.

Once medical devices are cleared for sale, regulatory authorities may still limit the use of such products, prevent the sale or manufacture of such products or require a recall or withdrawal of such products from the marketplace. Following initial clearance from regulatory authorities, we continue to be subject to extensive regulatory requirements. Government authorities can withdraw marketing clearance due to our failure to comply with regulatory standards or due to the occurrence of unforeseen problems following initial clearance. Ongoing regulatory requirements are wide-ranging and govern, among other things:

- Product manufacturing;
- Supplier substitution;
- Product changes;
- Process modifications;
- Medical device reporting;
- Product sales and distribution; and
- Annual inspections to retain CE mark for sale of products in the European Union.

As a small company with limited resources, it is possible that there may be failures in our quality system in regard to documenting and reporting on product quality and patient safety issues. If the FDA or a comparable foreign authority believes we are not in compliance with applicable laws or regulations, it can:

- Seize our products;
- Require a recall;
- Withdraw previously granted market clearances;
- Implement procedures to stop future violations; and/or
- Seek civil and criminal penalties against us.

In addition, suppliers of components of, and products used to manufacture, our products must also comply with the FDA and foreign regulatory requirements, which often require significant resources and subject us and our suppliers to potential regulatory inspections and stoppages. If our suppliers do not achieve and maintain required regulatory approval, our commercialization efforts could be delayed, which would impair our business, financial condition, operating results and cash flows.

Compliance with environmental laws and regulations may be expensive. Failure to comply with environmental laws and regulations could subject us to significant liability. Our manufacturing operations and research and development activities involve the use of biological materials and hazardous substances and are subject to a variety of federal, state and local environmental laws and regulations relating to the storage, use, discharge, disposal, remediation of, and human exposure to, hazardous substances. Our research and development and manufacturing operations may produce biological waste materials, such as animal tissues, and certain chemical waste. These operations are permitted by regulatory authorities, and the resultant waste materials are disposed of in material compliance with environmental laws and regulations. Compliance with these laws and regulations may be expensive and non-compliance could result in substantial liabilities. In addition, we cannot completely eliminate the risk of accidental contamination or injury to third parties from the use, storage, handling or disposal of these materials. In the event of contamination or injury, we could be held liable for any resulting damages, and any liability could exceed any applicable insurance coverage we may have. In addition, our manufacturing operations may result in the release, discharge, emission or disposal of hazardous substances that could cause us to incur substantial liabilities, including costs for investigation and remediation. Further, our corporate headquarters 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.

If we experience a material weakness in our internal controls, our ability to report our financial results on a timely and accurate basis may be adversely affected. In prior periods, we did not maintain effective controls over the preparation, review, presentation and disclosure of our financial statements. Specifically, we incorrectly reported certain expenses as part of continuing operations rather than as part of discontinued operations in accordance with U.S. generally accepted accounting principles. This control deficiency resulted in the restatement of our financial statements for the fiscal year ended April 30, 2005 and the three and six-month periods ended October 31, 2004. Accordingly, management determined that this control deficiency constituted a material weakness in our internal control over financial reporting for each reporting period from the identification of such material weakness through January 31, 2007.

A material weakness is a control deficiency or a combination of control deficiencies that results in more than a remote likelihood that a material misstatement of the annual or interim consolidated financial statements will not be prevented or detected. We believe we have remediated the above-referenced material weakness through, among other things, a thorough review of the classification requirements of

each component line item and the individual elements that comprise each line item of the statement of operations, in accordance with generally accepted accounting principles. Although we believe we have remediated this material weakness, we cannot assure you that this or other control deficiencies will not result in a misstatement in the future.

We are currently implementing a new enterprise resource planning system. We cannot assure you that the implementation will not result in some short-term issues, which might delay the production of financial statements in a timely manner, or which may cause errors and misstatements.

We cannot be certain that material weaknesses in our internal control over financial reporting will not be discovered in the future. Any failure to remediate future material weaknesses or to implement required new or improved controls, or difficulties encountered in their implementation, could harm our operating results, cause us to fail to meet our reporting and registration obligations or result in material misstatements in our financial statements.

We may be exposed to potential risks relating to our internal controls over financial reporting and our ability to have those controls attested to by our independent registered public accounting firm. As directed by Section 404 of the Sarbanes-Oxley Act, the SEC adopted rules requiring public companies to include a report of management on internal control over financial reporting in their annual reports, including Annual Reports on Form 10-KSB, which we file. In addition, the independent registered public accounting firm auditing a public company's financial statements must attest to and report on management's assessment of the effectiveness of the company's internal control over financial reporting as well as the operating effectiveness of the company's internal controls over financial reporting. We expect to become subject to the requirement to provide management's report on internal control over financial reporting for the fiscal year ending April 30, 2008. We expect to become subject to the requirement to file an auditor's attestation report on internal control over financial reporting for the fiscal year ending April 30, 2009.

While we expect to expend significant resources in developing the necessary documentation and testing procedures required by Section 404 of the Sarbanes-Oxley Act, there is a risk that we will not comply with all of the requirements imposed thereby. Accordingly, we cannot assure you that we will not receive an adverse report on our assessment of our internal controls over financial reporting and/or the operating effectiveness of our internal controls over financial reporting from our independent registered public accounting firm.

If we identify significant deficiencies or material weaknesses in our internal controls over financial reporting that we cannot remediate in a timely manner or we receive an adverse report from our independent registered public accounting firm with respect to our internal controls over financial reporting, investors and others may lose confidence in the reliability of our financial statements and our ability to obtain equity or debt financing could be adversely affected.

In addition to the above, in the event that our independent registered public accounting firm is unable to rely on our internal controls over financial reporting in connection with its audit of our financial statements, and in the further event that it is unable to devise alternative procedures in order to satisfy itself as to the material accuracy of our financial statements and related disclosures, it is possible that we could receive a qualified or adverse audit opinion on those financial statements. In that event, the market for our common stock could be adversely affected. In addition, investors and others may lose confidence in the reliability of our financial statements and our ability to obtain equity or debt financing could be adversely affected.

We cannot predict the outcome of legal proceedings and an adverse determination could negatively impact our financial results. In March 2006, J Giordano Securities LLC (d/b/a J Giordano Securities Group) ("JGSG") filed suit against our company claiming that it is entitled to damages due to an alleged

breach of the engagement agreement, as amended, between us and JGSG. In particular, JGSG originally claimed that the exercise of outstanding warrants for the purchase of common stock by certain JGSG-identified investors and our purchase of outstanding shares of 5% Series A Redeemable Convertible Preferred Stock from certain JGSG-identified investors in December 2005 and January 2006 entitled JGSG to damages no less than $1,431,769. In September 2006, we asserted a counterclaim against JGSG based upon JGSG's failure to satisfactorily perform under the engagement agreement. In November 2006, JGSG added new claims for additional compensation based upon the issuance of additional common stock to preferred stock holders in the alleged "follow-on transactions," our alleged failure to timely file a resale registration statement for JGSG, and for additional compensation based upon our October 2006 private placement. As a result of these new claims, JGSG amended its claim for damages to $3,346,565. Although we intend to vigorously defend ourselves against the lawsuit, an adverse resolution of this lawsuit could materially affect our ability to fund our operations.

The U.S. District Court in the District of Connecticut has referred the matter to the National Association of Securities Dealers for binding arbitration. Given the nature of arbitration proceedings, it is reasonably possible that we may be expected to pay certain amounts in connection with this claim. As of April 30, 2007, we have not recorded an accrual for this matter since the amount to be paid, if any, cannot reasonably be estimated. Since this claim is for breach of contract, an adverse outcome may not be covered by our insurance.

Our stock price is volatile; purchasers of our common stock could sustain substantial losses. The stock market in general and the market for small medical device companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, investors may not be able to sell their common stock at or above the price paid for the stock. The price of our common stock is determined in the marketplace and may be influenced by many factors, including:

- Physician acceptance of our products;
- Developments, disputes or litigation concerning patents or other proprietary rights and our ability to obtain patent protection for our technologies;
- Regulatory restrictions in the U.S. and foreign countries;
- The ability to manufacture our products to commercial standards;
- Public concern over our products;
- The loss of key personnel;
- Additional future sales of our common stock or common stock equivalents;
- Comparisons of our financial results with those of companies that are perceived to be similar to us;
- The pricing of our products;
- Changes in the structure of healthcare payment systems;
- Investors' perceptions of us; and
- General economic, industry and market conditions.

A decline in the market price of our common stock could cause you to lose some or all of your investment and may adversely impact our ability to attract and retain employees and raise capital. In addition, shareholders may initiate securities class action lawsuits if the market price of our stock drops significantly, which may cause us to incur substantial costs and could divert the time and attention of our management.

Fluctuations in our operating results may result in decreases in the price of our securities. We expect our operating results to fluctuate significantly because of several factors, including product development expenditures, payroll expenses and scale-up costs. Consequently, our operating results may fall below the expectations of public market analysts and investors. In that event, the price of our securities would likely decrease.

If there are substantial sales of our common stock by existing shareholders, the price of our common stock may decline. If our existing common shareholders sell substantial amounts of common stock in the public market, or the market perceives that such sales may occur, the market price of our common stock could fall. As of December 1, 2006, existing shareholders had the ability to sell 9,428,562 shares in the public market pursuant to registration statements on Form SB-2 filed with the SEC. In addition, we anticipate that we will need to raise additional capital to fund operations. If we raise additional funds by issuing equity securities, our stock price may decline and our existing shareholders may experience significant dilution. Furthermore, we may enter into financing transactions at prices that represent a substantial discount to market price. A negative reaction by investors and securities analysts to any sale of our equity securities could result in a decline in the trading price of our common stock.

You may have difficulty reselling our common stock. We cannot assure you of an active public market for our common stock. Selling our securities also may be difficult because of the quantity of securities that may be bought and sold, the possibility that transactions may be delayed, and a low level of security analyst and news media coverage. These factors could contribute to lower prices and larger spreads in the bid and ask prices for our securities.

If we fail to effectuate or maintain certain resale registration statements, we could face substantial monetary charges. In connection with various private placements, we have entered into registration rights agreements in which we agreed to prepare and file with the SEC by certain filing dates, registration statements to register certain shares of common stock, which registration statements must be maintained effective throughout a period of up to five years. In general, if we fail to file any registration statement by a required filing date, or a registration statement is not declared effective by a specified effectiveness date, or after an effective date, the registration statement ceases to be effective and available to the holders of the securities that were registered for more than a specified number of days in any consecutive 12 month period, then in addition to other rights which such holders may have against us under applicable law, we are generally obligated to pay as liquidated damages to such holders for each calendar month or portion thereof up to 1.5 percent of the aggregate amount invested by the investors until we satisfy the requirements of the registration rights agreement. If we are required to pay such liquidated damages or other amounts to these holders, our business, financial condition, operating results and cash flows would be materially adversely affected.

Full-ratchet anti-dilution rights in the warrants we have issued and those we are required to issue will cause substantial dilution to our other shareholders, if triggered. In connection with the secured note transactions entered into in April and June 2007, we issued warrants for the purchase of an aggregate of 1,874,998 shares of common stock at $4.00 per share which contained "full ratchet" anti-dilution provisions. These provisions, which expire 12 months after the respective date of issuance of each warrant, operate to reduce the exercise price of the warrants upon the occurrence of certain events, including the issuance of certain equity securities at less than $4.00 per share. In addition, we are required to issue certain interest accrual warrants. These warrants will contain the same anti-dilution provisions as the warrants we issued at the closing of such transactions. Furthermore, we have certain outstanding warrants with weighted-average anti-dilution provisions. If the anti-dilution protections of the foregoing warrants are triggered, other shareholders would suffer immediate dilution. If we need to raise additional capital to meet current working capital requirements, we may trigger the anti-dilution rights of such warrant holders, which may result in additional dilution to our current shareholders.

Our affiliated shareholders have significant control over our company, which could reduce your ability to receive a premium for your securities through a change in control. As of July 2, 2007, our officers, directors and greater than 10 percent shareholders owned approximately 55.1 percent of our outstanding common stock. In addition, two of our largest shareholders, Whitebox and Potomac, are now our creditors with recourse to substantially all of our assets in the event of a default on our debt. As a result of this concentration of ownership, our affiliated shareholders may be able to control our company and direct our affairs, including the election of directors and approval of significant corporate transactions. This concentration of ownership could also delay, defer or prevent a change in control of our company, and make some transactions more difficult or impossible without their support. These transactions might include proxy contests, tender offers, open market purchase programs or other share purchases that could give our shareholders the opportunity to realize a premium over the then prevailing market price of our securities. As a result, this concentration of ownership could depress the price of our securities.

Minnesota law and our ability to issue preferred stock could deter a take-over or acquisition of our company. Our articles of incorporation authorize the issuance of shares of preferred stock. Our board of directors, without any action by our shareholders, is authorized to designate and issue preferred stock in such classes or series, as it deems appropriate and establish the rights and privileges of such shares, including liquidation and voting rights. Our ability to designate and issue preferred stock having preferential rights over our common stock could adversely affect the voting power and other rights of holders of common stock. We are also subject to the Minnesota Business Corporation Act, which includes provisions that limit the voting rights of persons acquiring specified percentages of shares of an issuing public corporation in a "control share acquisition" and restrict "business combinations" between issuing public corporations and specified persons acquiring their securities. Our ability to issue preferred stock and the application of the provisions of Minnesota law discussed above could impede or deter another party from making a tender offer or other proposal to acquire our company.

We do not intend to pay cash dividends on our common stock in the foreseeable future. We have not paid dividends on our common stock and do not anticipate paying any cash dividends in the foreseeable future.

Cautionary Note Regarding Forward-Looking Statements

This document contains forward-looking statements, which generally include the plans and objectives of management for future operations, including plans and objectives relating to our future economic performance and our current beliefs regarding revenues we might earn if we are successful in implementing our business strategies.

The forward-looking statements and associated risks may include, relate to or be qualified by other important factors. You can identify forward-looking statements generally by the use of forward-looking terminology such as "believes," "expects," "may," "will," "intends," "plans," "should," "could," "seeks," "pro forma," "anticipates," "estimates," "continues," or other variations of those terms, including their use in the negative, or by discussions of strategies, opportunities, plans or intentions. You may find these forward-looking statements under the captions "Business" and "Management's Discussion and Analysis or Plan of Operation." These forward-looking statements include, among other things, statements about:

- The rate and degree of market acceptance of our products;
- The timing of and our ability to obtain and maintain regulatory clearances for our products;
- Our sales and marketing strategy;
- Our manufacturing strategy;
- Our ability to develop and market new and enhanced products;

- Our intellectual property portfolio;
- The timing of and ability to obtain reimbursement for procedures utilizing our products;
- Our competitors;
- Our estimates regarding future revenues, expenses and capital requirements; and
- The unpredictability of our quarterly results of operations.

These forward-looking statements necessarily depend upon assumptions and estimates that may prove to be incorrect. Although we believe that the assumptions and estimates reflected in the forward-looking statements are reasonable, we cannot guarantee that we will achieve our plans, intentions or expectations. The forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results to differ in significant ways from any future results expressed or implied by the forward-looking statements.

Any of the factors described above or in our Cautionary Statement could cause our financial results, including our net income (loss) or growth in net income (loss), to differ materially from prior results, which in turn could, among other things, cause the price of our common stock to fluctuate substantially.

ITEM 7 FINANCIAL STATEMENTS

See Index to Financial Statements on Page F-1.

ITEM 8 CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

ITEM 8A 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 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 Annual Report on Form 10-KSB. 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 Annual Report on Form 10-KSB.

Changes in Internal Control Over Financial Reporting

There was no change in our internal control over financial reporting that occurred during our quarter ended April 30, 2007 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 8B OTHER INFORMATION

Not applicable.

PART III

ITEM 9 DIRECTORS, EXECUTIVE OFFICERS, PROMOTERS, CONTROL PERSONS AND CORPORATE GOVERNANCE; COMPLIANCE WITH SECTION 16(a) OF THE EXCHANGE ACT

The following table provides information with respect to our directors and executive officers as of July 2, 2007. Our directors hold office until our next annual meeting of shareholders and until their successors have been elected and qualified. Each executive officer has been appointed to serve until his successor is duly appointed by the board or his earlier removal or resignation from office. There are no family relationships among our directors and executive officers.

Executive Officers and Directors

Name	Age	Principal Occupation	Position with MedicalCV	Director Since
Susan L. Critzer(1)(3)	51	Retired Chief Executive Officer and Chief Financial Officer of Restore Medical, Inc.	Chairperson of the Board	2002
Marc P. Flores	42	President, Chief Executive Officer and Director of MedicalCV, Inc.	President, Chief Executive Officer and Director	2004
Adam L. Berman	32	Vice President, Research and Development	Vice President, Research and Development	N/A
Eapen Chacko	59	Vice President, Finance and Chief Financial Officer	Vice President, Finance and Chief Financial Officer	N/A
David A. Chazanovitz(2)	56	Executive Consultant	Director	2007
Robert W. Clapp	57	Vice President, Operations	Vice President, Operations	N/A
Richard J. Faleschini	60	President and Chief Executive Officer of BioSphere Medical, Inc.	Director	2007
Larry G. Haimovitch(2)(3)	60	President of Haimovitch Medical Technology Consultants	Director	2005
David B. Kaysen(1)(2)	57	President and Chief Executive Officer of Uroplasty, Inc.	Director	2002
Paul K. Miller	84	Private Investor	Director	1994
J. Robert Paulson, Jr.(1)	50	President, Chief Executive Officer and Director of Restore Medical, Inc.	Director	2005
Gary O. Tegan	40	Vice President, Marketing	Vice President, Marketing	N/A

(1) Member of the audit committee.

(2) Member of the compensation committee.

(3) Member of the corporate governance and nominating committee.

Susan L. Critzer, who has been Chairperson of the Board since September 2005 and one of our directors since August 2002, has over 25 years of industry experience in general management, operations and product development. Ms. Critzer served as Chief Executive Officer and Chief Financial Officer of Restore Medical, Inc., a company focused on developing and marketing products for the ear, nose and throat field, from June 2002 to April 2005. From January 2001 to June 2002, Ms. Critzer served as Chief

Operating Officer of Venturi Development Group, the business incubator focused on seed level medical device opportunities which founded Restore Medical. Prior to joining Venturi, Ms. Critzer served as President and Chief Executive Officer and Acting Chief Financial Officer of Integ Incorporated, a publicly held development stage glucose monitoring company from 1998 until it was acquired by Inverness Medical in early 2001. She joined Integ in 1995 as Vice President, Operations. Before joining Integ, Ms. Critzer served in various management roles at the Davis + Geck Division of American Cyanamid Corp., and the Deseret Medical Division of Becton-Dickinson Corp. Ms. Critzer began her career with General Motors Corporation where she spent thirteen years in a variety of engineering and management positions, including managing a $200 million truck front suspension plant in Detroit. Ms. Critzer serves on the Board of Governors and is a 3M Fellow at the University of St. Thomas School of Engineering in St. Paul, Minnesota.

Marc P. Flores became our President, Chief Executive Officer and one of our directors in August 2004. Mr. Flores served as Vice President of Sales & Marketing of Coalescent Surgical, Inc., a company focused on developing advanced technology for blood vessel anastomoses, from March 2000 to August 2004. Prior to joining Coalescent, Mr. Flores was Western Regional Manager of Sales for CardioThoracic Systems, Inc. from June 1997 to March 2000. Before joining CardioThoracic Systems, he held a variety of management and sales positions with Boston Scientific Corporation, GE Medical Systems and Xerox Corporation.

Adam L. Berman joined MedicalCV in September 2004 as Vice President, Research and Development. Mr. Berman has extensive experience and relationships within the cardiac surgery industry. From July 2001 to August 2004, he was a regional sales manager for Coalescent Surgical, Inc. From August 1998 to June 2001, he was a regional development manager for Computer Motion, a company focused on robotic-assisted, minimally invasive approaches for surgery. Before joining Computer Motion, Mr. Berman held various clinical research positions within the field of cardiac surgery.

Eapen Chacko joined MedicalCV in June 2006, as Vice President, Finance and Chief Financial Officer and assumed the roles of principal financial officer and principal accounting officer in July 2006. Mr. Chacko has over 30 years of experience in strategic planning, investor relations, equity research and economics. From September 2000 to May 2005, he was Chief Financial Officer of Possis Medical, Inc., a publicly held developer, marketer and manufacturer of medical devices for the endovascular treatment market. Mr. Chacko was Vice President for Investor and Public Relations, Corporate Communication at Possis from September 1999 to August 2000. From 1995 to 1999, he was Director of Investor Relations at Fingerhut Companies, a publicly held direct marketer and financial services company. Mr. Chacko is a director of Hawkins, Inc., a publicly held company that formulates, blends and distributes bulk and specialty chemicals. Mr. Chacko has been named, along with his former employer Possis Medical, Inc. and another officer of that company, as a defendant in a securities class action case entitled Crowell, et al. v. Possis Medical, Inc. et al., No. 05-CV-01084-JMR-FLN, originally filed on June 3, 2005 in the U.S. District Court for the District of Minnesota. The consolidated amended class action complaint alleges violations of Section 10(b) and Rule 10b-5 of the Exchange Act against all defendants and claims under Section 20(a) against the officer defendants, all arising out of alleged misstatements and omissions about that company's AngioJet product and clinical trials for that product. This securities class action case was dismissed, with prejudice, by the presiding judge, although that decision is being appealed. Mr. Chacko plans to resign from his positions at our company on September 15, 2007.

David A. Chazanovitz, one of our directors since January 2007, is an executive consultant who served as Chief Executive Officer of Cambridge Heart, Inc. from February 2001 through October 2006 and as the President and a director of Cambridge Heart from October 2000 through October 2006, including service as the Chairman of the Board of Directors from July 2004 to October 2006. Cambridge Heart is engaged in the research, development and commercialization of products for the non-invasive diagnosis of cardiac disease, including the use of technology to identify those at risk of sudden cardiac death. From July1998 to

September 2000, Mr. Chazanovitz served as the President of the Neurosciences Division of NMT Medical Inc., a medical device firm. From June 1996 to July 1998, Mr. Chazanovitz served as the President of the Septal Repair Division of NMT, following the merger of Innerventions, Inc. with NMT. Mr. Chazanovitz was a founder in 1995 of Innerventions, a developer of septal repair devices. Mr. Chazanovitz also previously served as the President of several divisions of C.R. Bard, Inc., a medical products firm, including Bard Ventures, Bard Electrophysiology and USCI Angiography. Mr. Chazanovitz currently serves as a director of INOVISE Medical, Inc., an emerging growth medical device firm specializing in the combined use of ECG and acoustic cardiography to diagnose conditions of the heart.

Robert W. Clapp joined MedicalCV in August 2004 as Vice President, Operations. From March 1993 to August 2004, Mr. Clapp was Vice President of Manufacturing, Quality, and Research/Development for EMPI, where he developed and introduced many new products, improved manufacturing efficiencies and lowered manufacturing costs. From February 1987 to March 1993, he was Vice President of Manufacturing for Dacomed Corporation, where he helped introduce five new products into the marketplace in 18 months. Prior to that, Mr. Clapp held engineering and operations positions at Xerxes Corporation, Medtronic, Inc., Control Data Corporation and AMF Paragon Electric.

Richard J. Faleschini, one of our directors since January 2007, has served as President and Chief Executive Officer of BioSphere Medical, Inc. since November 2004 and as a director of BioSphere Medical since March 2005. BioSphere Medical develops, manufactures and markets products for medical applications using embolotherapy techniques. Embolotherapy is the therapeutic introduction of various substances into a patient's circulatory system to occlude blood vessels, either to arrest or prevent hemorrhaging or to devitalize a structure or organ by occluding its blood supply. Prior to joining BioSphere Medical, Mr. Faleschini served from 2003 to 2004 as Vice President and General Manager of American Medical Systems Gynecology, a business unit of American Medical Systems Holdings, Inc., a supplier of medical devices to physicians specializing in the treatment of urological and gynecological disorders. From 1999 to 2003, Mr. Faleschini served as Vice President, Marketing and Sales at American Medical Systems Holdings, Inc.

Larry G. Haimovitch, one of our directors since August 2005, serves as President of Haimovitch Medical Technology Consultants, a San Francisco-based health care consulting firm he formed in 1990. His firm, whose current area of emphasis includes minimally invasive surgical technologies, specializes in the analysis of the medical device industry with emphasis on the current trends and future outlook for emerging medical technology. Mr. Haimovitch currently serves as a director of Fralex Therapeutics Inc., a publicly held company that is developing a devise to treat fibromyalgia.

David B. Kaysen, one of our directors since August 2002, serves as President, Chief Executive Officer and a director of Uroplasty, Inc., a developer, manufacturer and marketer of products primarily for the treatment of urinary and fecal incontinence and overactive bladder symptoms. Mr. Kaysen served as President and Chief Executive Officer of Advanced Duplication Services LLC, a privately held duplicator/replicator of CDs and DVDs, from July 2005 until May 2006. From December 2002 through July 2005, Mr. Kaysen served as President, Chief Executive Officer and a director of Diametrics Medical, Inc., a company that develops, manufactures and commercializes blood and tissue analysis systems that provide diagnostic results at the point of patient care. Mr. Kaysen has more than 25 years of executive management and sales and marketing experience in the medical products and services industry, most recently serving 10 years as President, Chief Executive Officer and a director of Rehabilicare Inc. (now Compex Technologies, Inc.), a manufacturer and marketer of home electrotherapy equipment for the physical therapy, rehabilitation, occupational and sports medicine markets. From 1988 to 1989, Mr. Kaysen served as President, Chief Executive Officer and a director of Surgidyne, Inc. (now Sterion, Inc.). Mr. Kaysen has also held senior management positions in sales and marketing at several medical product and services companies, including Redline Healthcare, American Hospital Supply Corporation, Emeritus Corporation and Lectec/NDM Corporation.

Paul K. Miller, one our directors since August 1994, served as President of Acton Construction Management Company, a real estate management company, from 1980 to 2004. Mr. Miller has, over the course of his business career, been the President and majority shareholder of various companies with offices in Minnesota and Texas that have been engaged in the construction of municipal wastewater projects throughout the central U.S. and in the acquisition and management of real estate investments. He is a significant investor and director of a number of development stage companies and has served as a bondholders' representative on the creditors' committees of several publicly held companies.

J. Robert Paulson, Jr., one of our directors since August 2005, has served as President, Chief Executive Officer and a director of Restore Medical, Inc., a company focused on developing and marketing products for the ear, nose and throat field, since April 2005. Prior to joining Restore Medical, Mr. Paulson served as Chief Financial Officer and Vice President of Marketing for Endocardial Solutions, Inc. from August 2002 until March 2005. From 2001 to June of 2002, Mr. Paulson was the Sr. Vice President and General Manager of the Auditory Division of Advanced Bionics Corporation, and between 1995 and 2001, Mr. Paulson served in various capacities at Medtronic, Inc., including Vice President and General Manager of the Surgical Navigation Technologies business unit; Vice President of Corporate Strategy and Planning; and Director of Corporate Development. From 1988 to 1995, Mr. Paulson held various marketing, business development and in-house counsel positions at General Mills, Inc., and prior to that practiced law at the Minneapolis firm of Lindquist & Vennum. Mr. Paulson has served on the board of directors of Vascular Solutions, Inc. since May 2005.

Gary O. Tegan, Vice President, Marketing, joined MedicalCV in April 2006. Most recently, Mr. Tegan served as the Vice President of Sales & Marketing for PneumRx, Inc. from September 2005 through April 2006, where he developed and implemented the company's sales and marketing strategy for its initial product launch. From June 2004 to September 2005, he served as Vice President of Marketing at Curon Medical, Inc., a radiofrequency energy based company focused on the treatment of gastrointestinal disorders. Prior to that, Mr. Tegan was the Director of Marketing for Coalescent Surgical, Inc. from June 2001 to June 2004, where he helped develop its anastomotic device business using technology-based marketing techniques. Previously, Mr. Tegan held a series of senior sales and marketing positions at United States Surgical and Starion Instruments.

Significant Employees

Eric Podevels, age 29, joined MedicalCV as Controller in April 2006. From September 2004 to January 2006, Mr. Podevels held various positions at PricewaterhouseCoopers LLP where he provided strategic and financial due diligence and transaction consulting services to private equity funds and companies. From September 2000 to September 2004, Mr. Podevels held various positions at Deloitte & Touche LLP where he provided audit and assurance services, researched complex technical accounting positions, evaluated the design and effectiveness of internal controls, and facilitated the financial statement audits and reviews of various companies. Mr. Podevels is a Certified Public Accountant and holds various professional affiliations including the American Institute of Certified Public Accountants and the Minnesota Society of Certified Public Accountants.

Audit Committee Matters and Audit Committee Financial Experts

We have a separately designated standing audit committee established in accordance with Section 3(a)(58)(A) of the Exchange Act. Susan L. Critzer, David B. Kaysen and J. Robert Paulson, Jr. are the members of our audit committee. Mr. Paulson chairs our audit committee.

Under Nasdaq Marketplace Rules that would apply if our common stock were listed on Nasdaq, each member of our audit committee would be required to (i) be independent as defined under Nasdaq Marketplace Rule 4200(a)(15); (ii) meet the criteria for independence set forth in Rule 10A-3(b)(1) under

the Exchange Act; (iii) not have participated in the preparation of the financial statements of the company or any current subsidiary of the company at any time during the past three years; and (iv) be able to read and understand fundamental financial statements, including a company's balance sheet, income statement, and cash flow statement. Our board of directors has determined that each member of our audit committee would meet these requirements.

In addition, at least one member of our audit committee would be required to have past employment experience in finance or accounting, requisite professional certification in accounting, or other comparable experience or background which results in the individual's financial sophistication, including being or having been a chief executive officer, chief financial officer or other senior officer with financial oversight responsibilities. Our board of directors has determined that at least Ms. Critzer would meet this requirement.

Our board of directors has determined that each of Susan L. Critzer and J. Robert Paulson, Jr. is an "audit committee financial expert" as defined in Item 407(d)(5) of Regulation S-B.

Code of Ethics

We have adopted a Code of Business Conduct and Ethics that is applicable to all of our employees, officers (including our principal executive officer, principal financial officer, principal accounting officer, controller, and persons performing similar functions) and directors. Our Code of Business Conduct and Ethics satisfies the requirements of Item 406(b) of Regulation S-B and the Nasdaq Marketplace Rules that would apply if our common stock were listed on Nasdaq. Our Code of Business Conduct and Ethics is posted on our website at www.medcvinc.com and is available free of charge, upon written request to our Chief Financial Officer at MedicalCV, Inc., 9725 South Robert Trail, Inver Grove Heights, MN 55077. We intend to disclose any amendments to or waivers from a provision of our Code of Business Conduct and Ethics that require disclosure on our website at www.medcvinc.com.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our officers, directors and persons who own more than 10 percent of a registered class of our equity securities to file reports of ownership and changes in ownership with the U.S. Securities and Exchange Commission ("SEC"). Such officers, directors and shareholders are required by the SEC to furnish us with copies of all such reports. To our knowledge, based solely on a review of copies of reports filed with the SEC during the last fiscal year, all applicable Section 16(a) filing requirements were met, except that (i) one report on Form 4 setting forth the May 10, 2006 grant of a stock option for the purchase of 25,000 shares to Gary O. Tegan, our Vice President, Marketing, (ii) one report on Form 4 setting forth the September 30, 2006 disposition of 69,671 shares of common stock by MedCap Partners, LP, one of our principal shareholders, (iii) one report on Form 4 setting forth the December 7, 2006 sale of 11,000 shares of common stock by MedCap Partners, LP, one of our principal shareholders, and (iv) one report on Form 4 setting forth the December 29, 2006 disposition of 242,893 shares of common stock by MedCap Partners, LP, one of our principal shareholders, were not filed on a timely basis.

ITEM 10 EXECUTIVE COMPENSATION

The following table sets forth information with respect to compensation paid by us to our principal executive officer and our other two most highly compensated executive officers (the "Named Executive Officers") for the fiscal year ended April 30, 2007.

Summary Compensation Table

Name and Principal Position	Year	Salary ($)(a)	Bonus ($)	Option Awards ($)(b)	Non-Equity Incentive Plan Compensation ($)(c)	All Other Compensation ($)(d)	Total ($)
Marc P. Flores ..... President and Chief Executive Officer	2007	245,575	—	828,148	80,902	16,549	1,171,174
Adam L. Berman ..... Vice President, Research and Development	2007	185,500	30,000	173,044	—	16,170	404,714
Robert W. Clapp ..... Vice President, Operations	2007	182,000	20,000	184,983	—	6,042	393,025

(a) Effective July 1, 2007, the annual base salaries of our Named Executive Officers were reset as follows: Mr. Flores ($260,670), Mr. Berman ($196,630) and Mr. Clapp ($191,100).

(b) Represents the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year ended April 30, 2007 in accordance with FAS 123R, disregarding the estimate of forfeitures related to service-based vesting conditions. For information concerning the assumptions made in the valuation of awards, see Note 7 of our financial statements for the fiscal year ended April 30, 2007.

On June 27, 2007, the compensation committee of the our board of directors awarded our Named Executive Officers the following seven-year stock options: Mr. Flores (30,000 shares), Mr. Berman (10,000 shares), and Mr. Clapp (10,000 shares). These options have an exercise price of $5.50 per share and vest to the extent of 25% of the shares purchasable thereunder on the first anniversary of the date of grant and 6.25% of the shares purchasable thereunder quarterly thereafter. Since these awards were made after the fiscal year ended April 30, 2007, they are not reflected in the table above.

(c) Represents cash compensation earned by Mr. Flores under his non-equity incentive plan for performance during fiscal year 2007. Payment under this plan is based on a formula with the compensation committee maintaining the discretion to vary the formula and increase or decrease a payout. The target payout opportunity was up to 40 percent of the annual base salary in effect at November 1, 2006.

In October 2006, the compensation committee of our board of directors awarded Mr. Flores $25,000 pursuant to this plan, subject to his preparation and submission to the board of personal performance objectives for fiscal year 2007. Following review and approval by our compensation committee, the fiscal year 2007 performance measures were set as follows: (1) 510(k) clearance for the SOLAR System, (2) successful completion of financing, (3) product development objectives, (4) clinical cases, (5) development of a five-year plan, and (6) creation of a cash incentive plan for management. The committee determined that Mr. Flores had over-achieved on one of the objectives, fully accomplished two of the objectives, and partially accomplished one of the objectives. As a result of his performance, the committee set the actual award, when combined with the previously awarded $25,000, at approximately 80 percent of the maximum non-equity incentive plan award available to Mr. Flores for fiscal year 2007.

The compensation committee expects that any future non-equity incentive plan awards for Mr. Flores would stem from a non-equity incentive plan to be developed for the company's executive officers. Assuming timely adoption of such plan, the first awards would be issued thereunder following completion of the fiscal year ending April 30, 2008. Company-wide financial performance and completion of management objectives would determine whether, and to what extent, awards would be issued thereunder.

(d) All other compensation for fiscal year 2007 was as follows:

Name	Amounts Reimbursed for the Payment of Taxes ($)	Company Contributions to 401(k) Plan ($)	Relocation Expenses ($)	Total ($)
Marc P. Flores	—	—	16,549	16,549
Adam L. Berman	8,750	7,420	—	16,170
Robert W. Clapp	—	6,042	—	6,042

In November 2005, we entered into a letter agreement with Mr. Flores setting forth details regarding our company's agreement to reimburse him for certain relocation expenses. To assist Mr. Flores with the financial burden of maintaining a temporary Twin Cities residence, we agreed to provide Mr. Flores with a supplemental payment of $2,500 per month for a period of one year. Such payments are set forth above. We ceased providing the supplemental payment, and our other relocation expense reimbursement obligations to Mr. Flores ceased, on November 1, 2006.

The reimbursement of Mr. Berman for the payment of taxes related to benefits paid in connection with his relocation to the Twin Cities.

Employment Agreements

In July 2005, our board of directors approved a compensation arrangement for Marc P. Flores, our President and Chief Executive Officer. Pursuant to such arrangement, we entered into a written, at-will employment agreement under which we continued his employment at his then current annual base salary, which salary has subsequently been increased to $260,670 per year. Under the employment agreement, Mr. Flores obtained a bonus potential of up to 30 percent of base salary per year based upon achievement of certain goals, which maximum was subsequently adjusted to 40 percent of base salary for fiscal year 2007. The employment agreement provides that a severance payment will be made if the employment of Mr. Flores is terminated by our company without cause, or by Mr. Flores for good reason, including, but not limited to, a reduction of Mr. Flores' compensation; a reduction of authority and responsibility; a relocation of place of employment; or a breach of the employment arrangement by our company. The severance payment to Mr. Flores would equal one year of base salary. In addition to payment of base salary, we have agreed to pay or reimburse Mr. Flores for medical (COBRA) benefits for the period covered by the severance payment. Mr. Flores also 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.

In August 2005, we entered into written, at-will employment agreements with Adam L. Berman and Robert W. Clapp. These employees have current annual base salaries of $196,630 and $191,100, respectively, and they are eligible to receive performance-based cash bonuses. Each employment agreement provides that a severance payment will be made if the employment of the employee is terminated by our company without cause, or by the employee for good reason, including, but not limited to, a reduction of the employee's compensation; a reduction of authority and responsibility; a relocation of place of employment; or a breach of the employment agreement by our company. The severance payment would be six months of base salary; and, if at the end of such six-month period, the individual was not

employed or engaged as an independent contractor, we would pay him up to an additional six months of base salary until he is employed or engaged as an independent contractor. In addition to payments of base salary, we have agreed to pay or reimburse these individuals for medical (COBRA) benefits for the periods covered by the severance payments. These employees also have 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.

We have written, at-will employment agreements with our other executive officers that contain terms and conditions substantially similar to those in the employment agreements of Messrs. Berman and Clapp.

On June 28, 2007, we entered into an amendment to the employment agreement of Eapen Chacko, 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 will terminate on September 15, 2007. Subject to the conditions set forth in the amendment, Mr. Chacko's compensation and benefits will continue to be paid under the employment agreement at their current rates through his termination date. Except for the severance described below, Mr. Chacko is no longer eligible for bonus or other incentive compensation. Subject to the conditions set forth in the amendment, Mr. Chacko may receive severance payments aggregating up to $200,000 under his employment agreement. In addition to these severance payments, we have agreed to pay or reimburse Mr. Chacko for medical (COBRA) benefits. The amendment further provides for a mutual release of claims and other terms and conditions customary for agreements of this nature.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information concerning outstanding equity awards held by our Named Executive Officers at fiscal year end 2007:

	Option Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date
Marc P. Flores	9,673	9,674(a)	11.50	8/30/2014
	172,017	172,017(b)	8.90	4/1/2012
	7,167	21,502(b)	12.00	4/3/2013
Adam L. Berman	5,000	5,000(a)	9.50	9/27/2014
	32,253	32,253(b)	8.90	4/1/2012
	1,791	5,376(b)	12.00	4/3/2013
Robert W. Clapp	5,576	5,577(a)	13.00	8/9/2014
	32,253	32,253(b)	8.90	4/1/2012
	1,791	5,376(b)	12.00	4/3/2013

(a) This option vests to the extent of 25% of the shares purchasable thereunder on the first anniversary of the date of grant and 25% of the shares purchasable thereunder annually thereafter.

(b) This option vests to the extent of 25% of the shares purchasable thereunder on the first anniversary of the date of grant and 6.25% of the shares purchasable thereunder quarterly thereafter.

Potential Payments upon Termination or Change-in-Control

Upon the termination of a Named Executive Officer, such person may be entitled to payments or the provision of other benefits, depending on the event triggering the termination. The events that would trigger a Named Executive Officer's entitlement to payments or other benefits upon termination, and the value of the estimated payments and benefits are described in the following table, assuming a termination date and, where applicable, a change in control date of April 30, 2007, and a stock price of $4.20 per share, which was the price of one share of our common stock on April 30, 2007 (the last trading day of fiscal year 2007):

	Marc P. Flores	Adam L. Berman	Robert W. Clapp
Involuntary Termination without Cause within 12 months of a Change in Control			
Gain on Accelerated Stock Options(a)	$ —	$ —	$ —
Total:	$ —	$ —	$ —
Involuntary Termination without Cause, or Voluntary Termination for Good Reason			
Severance/Salary Continuation	$253,075	$185,500	$182,000
COBRA Subsidy	$ 17,557	$ 7,956	$ 7,815
Total:	**$270,632**	**$193,456**	**$189,815**

(a) The exercise price of each stock option held by our Named Executive Officers was greater than the price of one share of our common stock on April 30, 2007 (the last trading day of fiscal year 2007).

As described above, we have entered into employment agreements with the Named Executive Officers, which provide for severance payments, and payment or reimbursement for medical (COBRA) benefits for the period covered by the severance payments, upon an involuntary termination without cause, or voluntary termination with good reason. The severance payment to Mr. Flores would equal one year of base salary. The severance payments to Mr. Berman and Mr. Clapp would be six months of base salary, and if at the end of such six-month period, the individual was not employed or engaged as an independent contractor, we would pay him up to an additional six months of base salary until he is employed or engaged as an independent contractor. In addition to severance payments of base salary and payment of medical benefits, stock options granted to the Named Executive Officers provide that such options are fully vested in the event of an involuntary termination without cause following a change in control, as defined in such option agreements.

Non-Employee Director Compensation

The following table sets forth the compensation of our non-employee directors for fiscal year 2007, including Mr. Horsch who resigned from our board effective October 2006. Directors who are employees of our company receive no fees for their services as director.

Name	Fees Earned or Paid in Cash ($)	Option Awards ($)(a)	Total ($)
Susan L. Critzer	29,500	65,574	95,074
David A. Chazanovitz	3,333	6,227	9,560
Richard J. Faleschini	2,917	6,227	9,144
Larry G. Haimovitch	9,500	66,900	76,400
David B. Kaysen	10,000	65,574	75,574
Paul K. Miller	8,000	65,574	73,574
J. Robert Paulson, Jr.	11,000	66,900	77,900
Lawrence L. Horsch	3,000	56,737	59,737

(a) Represents the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year ended April 30, 2007 in accordance with FAS 123R, disregarding the estimate of

forfeitures related to service-based vesting conditions. For information concerning the assumptions made in the valuation of awards, see Note 7 of our financial statements for the fiscal year ended April 30, 2007.

Our non-employee directors, including Mr. Horsch who resigned from our board effective October 2006, held the following unexercised options at fiscal year end 2007:

	Option Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date
Susan L. Critzer	—	5,000	4.05	10/19/2016
	5,000	—	10.50	5/10/2016
	5,000	—	7.40	9/22/2015
	5,000	—	10.00	3/21/2015
	700	—	13.50	8/22/2009
	700	—	12.60	8/22/2008
	700	—	7.60	8/22/2007
David A. Chazanovitz	—	5,000	3.00	1/15/2017
	—	3,750	3.00	1/15/2017
Richard J. Faleschini	—	5,000	3.00	1/15/2017
	—	3,750	3.00	1/15/2017
Larry G. Haimovitch	—	5,000	4.05	10/19/2016
	5,000	—	10.50	5/10/2016
	5,000	—	7.40	9/22/2015
	673	—	8.00	8/3/2015
David B. Kaysen	—	5,000	4.05	10/19/2016
	5,000	—	10.50	5/10/2016
	5,000	—	7.40	9/22/2015
	5,000	—	10.00	3/21/2015
	700	—	13.50	8/22/2009
	700	—	12.60	8/22/2008
	700	—	7.60	8/22/2007
Paul K. Miller	—	5,000	4.05	10/19/2016
	5,000	—	10.50	5/10/2016
	5,000	—	7.40	9/22/2015
	700	—	13.50	8/15/2009
	700	—	13.10	8/15/2008
	700	—	8.30	8/15/2007
J. Robert Paulson, Jr.	—	5,000	4.05	10/19/2016
	5,000	—	10.50	5/10/2016
	5,000	—	7.40	9/22/2015
	673	—	8.00	8/3/2015
Lawrence L. Horsch	5,000	—	7.40	9/22/2015
	6,666	—	7.00	8/19/2013
	900	—	5.10	2/18/2008

Fees Earned or Paid in Cash

Pursuant to our Non-Employee Director Compensation Policy, effective July 1, 2007, our non-employee directors receive the following annual cash compensation:

Board Member (other than Board Chair)	$10,000
Board Chair	$24,000
Audit Committee Member (other than Audit Committee Chair)	$ 1,500
Audit Committee Chair	$ 4,000
Compensation Committee Member (other than Compensation Committee Chair)	$ 1,000
Compensation Committee Chair	$ 1,500
Corporate Governance and Nominating Committee Member (other than Corporate Governance and Nominating Committee Chair)	$ 1,000
Corporate Governance and Nominating Committee Chair	$ 1,500
Board Meeting Fee (in person)	$ 1,500
Board Meeting Fee (telephonic)	$ 500
Committee Meeting Fee (in person)	$ 500
Committee Meeting Fee (telephonic)	$ 500

In June 2007, the compensation committee approved a one-time compensation award to Susan L. Critzer, our Chairperson, for her contributions to our company. The cash element of such award was the payment of a $10,000 bonus. Since this award was made after the fiscal year ended April 30, 2007, it is not reflected in the Non-Employee Director Compensation table above.

Equity Awards

Our non-employee directors also receive equity-based compensation for their service on our board. In particular, each non-employee director who is elected to the board other than at an annual meeting of shareholders automatically receives a ten-year option to purchase 5,000 shares of common stock. Such option (1) has a per share exercise price equal to the fair market value of one share of common stock on the date of grant, (2) becomes exercisable on the first anniversary of the date of grant, and (3) is granted pursuant to the terms and conditions of the Amended and Restated 2001 Equity Incentive Plan. The date of grant is the date of election of such person to the board.

The foregoing option awards are in addition to the awards automatically granted pursuant to Section 5(b) of the 2005 Director Stock Option Plan. Under that plan, each year, as of the date of the annual meeting of shareholders, each non-employee director who has been elected or reelected or who is continuing as a member of the board as of the adjournment of the annual meeting, automatically receives an option award in the amount of 5,000 shares. In addition, each non-employee director who is elected to the board other than at an annual meeting of shareholders automatically receives an initial option award. The number of shares covered by such initial award is the nearest whole number, rounded down, equal to (a) 5,000 shares multiplied by (b) the quotient obtained by dividing (1) the number of whole weeks between the date of such person's election of the board and the scheduled date of the next annual meeting of shareholders and (2) 52 weeks. The date of such initial award is the date of election of such person to the board.

As a result of the foregoing, depending upon the time of year at which he or she joins the board, a non-employee director who is elected to the board other than at an annual meeting of shareholders receives initial option awards to purchase between 5,000 shares and 10,000 shares in the aggregate.

Each non-employee director also is automatically granted the right to elect to receive additional options in lieu of the amount of the director's cash compensation, or a portion thereof, for the year following election or reelection to, or continuation on, the board.

The initial awards, the annual grants and any options issued in lieu of the annual retainer have ten-year terms and vest 100 percent on the first anniversary of the date of grant. The vesting of such options accelerates in the event of a change of control of our company.

Outside the above-described option grants, in May 2006, our Board awarded non-qualified stock options for the purchase of 5,000 shares of common stock to each of Susan L. Critzer, Larry G. Haimovitch, Lawrence L. Horsch, David B. Kaysen, Paul K. Miller and J. Robert Paulson, Jr. The foregoing options were issued to each of our non-employee directors under our Amended and Restated 2001 Equity Incentive Plan. Such options vested immediately. They are exercisable at $10.50 per share. These options expire on May 10, 2016. Due to Mr. Horsch's resignation from the board, his option expired on January 19, 2007 unexercised.

In June 2007, the compensation committee approved a one-time compensation award to Susan L. Critzer, our Chairperson, for her contributions to our company. The equity-based element of such award was the issuance of an immediately vested restricted stock award for 2,500 shares of common stock under the 2001 Equity Incentive Plan. Since this award was made after the fiscal year ended April 30, 2007, it is not reflected in the Non-Employee Director Compensation table above.

ITEM 11 SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED SHAREHOLDER MATTERS

The following table sets forth certain information known to us regarding beneficial ownership of our common stock as of July 2, 2007, by (a) each person who is known to us to own beneficially more than five percent of our common stock, (b) each director, (c) each Named Executive Officer, and (d) all executive officers and directors as a group. The percentage of beneficial ownership is based on 9,839,724 shares outstanding as of July 2, 2007. As indicated in the footnotes, shares issuable pursuant to warrants and options are deemed outstanding for computing the percentage of the person holding such warrants or options but are not deemed outstanding for computing the percentage of any other person. Unless otherwise noted, each person identified below has sole voting and investment power with respect to such shares. Except as otherwise noted below, we know of no agreements among our shareholders which relate to voting or investment power with respect to our common stock. Unless otherwise indicated, the address for each listed shareholder is c/o MedicalCV, Inc., 9725 South Robert Trail, Inver Grove Heights, Minnesota 55077.

Name and Address of Beneficial Owner(1)	Amount and Nature of Beneficial Ownership(1)	Percent of Class(1)
Paul K. Miller	1,765,376(2)	17.1%
MedCap Management & Research LLC 500 Third St., Ste 535 San Francisco, CA 94107	1,581,957(3)	16.1%
SF Capital Partners, Ltd. c/o Stark Offshore Management, LLC 3600 S. Lake Dr. St. Francis, WI 53235	1,373,100(4)	14.0%
Paul K. Miller Irrevocable Trust of 2005 606 24th Avenue South, Suite B12 Minneapolis, MN 55454	1,139,226	11.6%
Whitebox Advisors, LLC 3033 Excelsior Blvd., Ste 300 Minneapolis, MN 55416	1,122,374(5)	11.4%

Name and Address of Beneficial Owner(1)	Amount and Nature of Beneficial Ownership(1)	Percent of Class(1)
Potomac Capital Management LLC 825 Third Ave., 33rd Fl. New York, NY 10022	1,012,811(6)	9.99%
Millennium Partners, L.P. c/o Millennium Management, L.L.C. 666 Fifth Ave., 8th Fl. New York, NY 10103	926,276(7)	9.4%
MedCap Partners, L.P. 500 Third St., Ste 535 San Francisco, CA 94107	847,114(3)	8.6%
MedCap Master Fund, L.P. 500 Third St., Ste 535 San Francisco, CA 94107	734,843(3)	7.5%
MedCap Partners Offshore, Ltd. 500 Third St., Ste 535 San Francisco, CA 94107	734,843(3)	7.5%
Perkins Capital Management, Inc. 730 East Lake St. Wayzata, MN 55391	708,280(8)	7.1%
Peter L. Hauser 16913 Kings Court Lakeville, MN 55044	537,855(9)	5.4%
Marc P. Flores	219,988(10)	2.2%
Robert W. Clapp	47,887(11)	*
Larry G. Haimovitch	45,408(12)	*
Adam L. Berman	44,773(13)	*
Susan L. Critzer	22,600(14)	*
David B. Kaysen	17,100(15)	*
J. Robert Paulson, Jr.	10,673(15)	*
David A. Chazanovitz	2,500	*
Richard J. Faleschini	—	0%
All current directors and executive officers as a group (12 persons)	2,206,924(16)	20.6%

* Less than one percent.

(1) Beneficial ownership is determined in accordance with the rules of the U.S. Securities and Exchange Commission ("SEC") and includes voting or investment power with respect to securities. Securities "beneficially owned" by a person may include securities owned by or for, among others, the spouse, children, or certain other relatives of such person as well as other securities as to which the person has or shares voting or investment power or has the option or right to acquire within 60 days of July 2, 2007.

(2) Represents (a) 146,758 shares, (b) 12,000 shares owned by Gracon Contracting Co., an entity over which Mr. Miller exercises control, (c) 12,100 shares purchasable upon the exercise of options, (d) 454,842 shares purchasable upon the exercise of warrants held by PKM Properties, LLC, an entity over which Mr. Miller exercises control, (e) 1,139,226 shares held by the Paul K. Miller Irrevocable Trust of 2005, of which Mr. Miller is the sole beneficiary, and (f) 450 shares owned by Mr. Miller's spouse.

(3) Based solely upon the Schedule 13G filed with the SEC on February 13, 2007. As set forth in the Schedule 13G, Medcap Management & Research LLC ("MMR") as general partner and investment manager of MedCap Partners L.P. and MedCap Master Fund L.P. and investment manager of MedCap Partners Offshore, Ltd. and C. Fred Toney as managing member of MMR may be deemed to beneficially own the shares owned by MedCap Partners, MedCap Master Fund and MedCap Offshore in that they may be deemed to have the power to direct the voting or disposition of such shares. MedCap Partners is the beneficial owner of 847,114 shares. MedCap Master Fund is a master fund and it contains substantially all of the assets of a "feeder fund," MedCap Offshore. MedCap Master Fund and Medcap Offshore are the beneficial owners of 734,843 shares. Neither the filing of the Schedule 13G nor any of its contents is deemed to constitute an admission that either MMR or Mr. Toney is, for any purpose, the beneficial owner of any securities to which the Schedule 13G relates, and MMR and Mr. Toney disclaim beneficial ownership as to the securities reported in the Schedule 13G, except to the extent of their respective pecuniary interests therein.

(4) Based solely upon the Schedule 13G filed with the SEC on February 14, 2007. As set forth in the Schedule 13G, Michael A. Roth and Brian J. Stark are the Managing Members of Stark Offshore Management LLC ("Stark Offshore"), which acts as investment manager and has sole power to direct the management of SF Capital Partners Ltd. Through Stark Offshore, Messrs. Roth and Stark possess voting and dispositive power over all of the shares to which the Schedule 13G relates. Messrs. Roth and Stark disclaim beneficial ownership of the shares.

(5) Based solely upon information furnished to us by Whitebox Advisors, LLC on June 28, 2007. Represents (a) 343,845 shares held by Whitebox Hedged High Yield Partners, L.P. ("WHHYP"), (b) 320,922 shares held by Whitebox Intermarket Partners, L.P. ("WIP"), (c) 200,654 shares held by Pandora Select Partners ("PSP"), (d) 184,767 shares held by Whitebox Convertible Arbitrage Partners, L.P. ("WCAP"), (e) 56,590 shares held by GPC LIX, LLC, (f) 15,596 shares held by Guggenheim Portfolio Company XXXI, LLC, and (g) 1,500,000 shares purchasable by Whitebox Ready Ltd. upon the exercise of warrants. Whitebox Advisors, LLC ("Whitebox Advisors") is the investment advisor for GPC LIX, LLC and Guggenheim Portfolio Company XXXI, LLC. Whitebox Advisors, the managing member of each of (i) Whitebox Hedged High Yield Advisors, LLC ("WHHYA"), (ii) Whitebox Intermarket Advisors, LLC ("WIA"), (iii) Pandora Select Advisors, LLC ("PSA") and (iv) Whitebox Convertible Arbitrage Advisors, LLC ("WCAA"), has the power to direct the affairs of each of WHHYA, WIA, PSA and WCAA. WHHYA, WIA, PSA and WCAA manage accounts for the benefit of its respective clients WHHYP, WIP, PSP and WCAP. As a result of these relationships, Whitebox Advisors may be deemed to have indirect beneficial ownership of the shares of common stock beneficially owned by each of WHHYP, WIP, PSP, WCAP, GPC LIX, LLC and Guggenheim Portfolio Company XXXI, LLC. Whitebox Advisors also may be deemed to have indirect beneficial ownership of the shares of common stock beneficially owned by Whitebox Ready Ltd. The exercise of the warrants held by Whitebox Ready Ltd. is limited so that no holder of such warrants may beneficially own (with such holder's affiliates) more 9.99% of our then-outstanding common stock (the "9.99% limitation"). The 9.99% limitation may not be waived. Because Whitebox Advisors and its affiliates beneficially own more than 10 percent of our common stock independent of the 9.99% limitation contained in the warrant held by Whitebox Ready Ltd., such warrant is not presently exercisable for any shares. The share number reported in the table for Whitebox Advisors above represents the maximum number of shares of common stock that Whitebox Advisors owns given that such warrant may not presently be exercised. In the absence of the 9.99% limitation, Whitebox Advisors would beneficially own 2,622,374 shares of our common stock, representing approximately 23.1 percent of the class, and Whitebox Ready Ltd. would appear in the table above as the beneficial owner of 1,500,000 shares of our common stock, representing approximately 13.2 percent of the class.

(6) Potomac Capital Partners LP, is a private investment partnership formed under the laws of the State of Delaware. Potomac Capital Management LLC ("PCMLLC") is the General Partner of Potomac Capital Partners LP. Paul J. Solit is the Managing Member of PCMLLC. Potomac Capital International Ltd., is an international business company formed under the laws of the British Virgin Islands. Potomac Capital Management Inc. ("PCMINC") is the Investment Manager of Potomac Capital International Ltd. Mr. Solit is the President and sole owner of PCMINC, and a Director of Potomac Capital International Ltd. Pleiades Investment Partners-R, LP is a private investment partnership formed under the laws of the State of Delaware. PCMINC is the Investment Manager of a managed account of Pleiades Investment Partners-R, LP. PCMLLC, PCMINC and Mr. Solit beneficially own 1,117,855 shares consisting of 714,286 shares of common stock and 403,569 shares purchasable upon the exercise of warrants. The exercise of certain warrants indirectly owned by PCMLLC is limited so that no holder of such warrants may beneficially own (with such holder's affiliates) more 9.99% of our then-outstanding common stock. The 9.99% limitation may not be waived. Because PCMLLC would beneficially own more than 10 percent of our common stock but for the 9.99% limitation, it is presently deemed to beneficially own warrants for the purchase of 298,525 shares (based on 9,839,724 shares of common stock outstanding and accounting for the shares resulting from such exercise). The share number reported in the table above represents the maximum number of shares of common stock that PCMLLC owns given that the exercisability of certain of its warrants is limited. In the absence of the 9.99% limitation, PCMLLC would beneficially own 1,117,855 shares of our common stock, representing approximately 10.9 percent of the class.

(7) The managing partner of Millennium Partners, L.P., a Cayman Islands exempted limited partnership ("Millennium Partners"), is Millennium Management, L.L.C., a Delaware limited liability company ("Millennium Management"), and consequently may be deemed to have voting control and investment discretion over securities owned by Millennium Partners. Israel A. Englander is the managing member of Millennium Management. As a result, Mr. Englander may be deemed to be the beneficial owner of any shares deemed to be beneficially owned by Millennium Management. The foregoing should not be construed in and of itself as an admission by either of Millennium Management or Mr. Englander as to beneficial ownership of the shares owned by Millennium Partners. Millennium Partners is a limited partner of Millenco, L.L.C., a Delaware limited liability company ("Millenco"). Millenco is a broker-dealer and a member of the American Stock Exchange.

(8) Based solely upon the Schedule 13G filed with the SEC on January 12, 2007. The Schedule 13G reports that these shares represent 595,552 common equivalents and 108,731 shares purchasable upon the exercise of warrants. Perkins Capital Management, LLC reports sole voting power over 194,482 shares and sole dispositive power over 704,283 shares. Anti-dilution adjustments in connection with our April and June 2007 debt financing have increased the number of shares purchasable upon exercise of the foregoing warrants to 112,728 shares. This updated count is reflected in the number reported in the above table.

(9) Represents (a) 386,907 shares, (b) 16,740 shares held by Mr. Hauser's IRA, and (c) 134,208 shares purchasable upon the exercise of warrants.

(10) Represents (a) 3,000 shares and (b) 216,988 shares purchasable upon the exercise of options.

(11) Represents (a) 1,000 shares, (b) 46,887 shares purchasable upon the exercise of options.

(12) Represents (a) 34,735 shares held by The Larry Haimovitch 2000 Separate Property Revocable Trust and (b) 10,673 shares purchasable upon the exercise of options.

(13) Represents (a) 1,250 shares, (b) 43,523 shares purchasable upon the exercise of options.

(14) Represents (a) 5,500 shares and (b) 17,100 shares purchasable upon the exercise of options.

(15) Represents shares purchasable upon the exercise of options.

(16) Represents (a) 1,346,419 shares, (b) 454,842 shares purchasable upon the exercise of warrants, and (c) 405,663 shares purchasable upon the exercise of options.

Equity Compensation Plan Information

The following table provides information as of the end of the most recently completed fiscal year with respect to compensation plans under which our equity securities are authorized for issuance.

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column(a)) (c)
Equity compensation plans approved by security holders	381,740	$8.61	372,635(1)
Equity compensation plans not approved by security holders	1,351,642(2)	$6.76	—
Total	1,733,382	$7.17	372,635

(1) Represents 13,844 shares remaining available for future issuance under our 1997 Stock Option Plan, 322,637 shares remaining available for future issuance under our Amended and Restated 2001 Equity Incentive Plan, and 36,154 shares remaining available for future issuance under our 2005 Director Stock Option Plan.

(2) Represents (a) 59,600 shares of common stock underlying a ten-year warrant exercisable at $3.50 per share issued to Paul K. Miller in connection with the January 2003 Discretionary Credit Agreement with PKM, which warrant expires on January 17, 2013, (b) 60,932 shares of common stock underlying a ten-year warrant exercisable at $3.59 per share issued to Paul K. Miller in connection with a sale-leaseback transaction entered into on April 4, 2003, which warrant expires on April 4, 2013, (c) 5,000 shares of common stock underlying a seven-year warrant exercisable at $29.50 per share issued to Segmed Inc. in connection with a purchase of technology, which warrants expire on August 7, 2009, (d) 74,164 shares of common stock underlying a ten-year warrant exercisable at $3.59 per share issued to Peter L. Hauser in connection with a July 2003 financing, which warrant expires on July 1, 2013, (e) 74,163 shares of common stock underlying a ten-year warrant exercisable at $3.59 per share issued to PKM in connection with the May 2003 Discretionary Credit Agreement, which warrant expires to the extent of 62,429 shares on July 1, 2013 and 11,734 shares on August 20, 2013, (f) 10,000 shares of common stock underlying seven-year warrants exercisable at $14.60 per share issued to LightWave Ablation Systems, Inc. in connection with a purchase of technology, which warrants expire to the extent of 2,500 shares on August 27, 2010 and 2,500 shares on December 1, 2011, 2,500 shares on November 29, 2012, and 2,500 shares on November 21, 2013, (g) 29,545 shares of common stock underlying a ten-year warrant exercisable at $4.40 per share issued to PKM in connection with the November 2003 Credit Agreement, which warrant expires on November 13, 2013, (h) 30,730 shares of common stock underlying a ten-year warrant exercisable at $4.23 per share issued to Draft Co. in consideration of a loan agreement with Draft Co., which warrant expires on November 24, 2013, (i) 145,145 shares of common stock underlying a ten-year warrant exercisable at $4.56 per share issued to PKM in connection with a November 2003 extension of the maturity date of an existing discretionary credit agreement, which warrant expires on February 3, 2014, (j) 59,649 shares of common stock underlying a ten-year warrant exercisable at $4.56 per share issued to Peter L. Hauser

in connection with the extension of the maturity date of the $1.0 million financing provided by Mr. Hauser, which warrant expires February 3, 2014, (k) 11,573 shares of common stock underlying a ten-year warrant exercisable at $4.32 per share issued to PKM in connection with the October 2004 Discretionary Credit Agreement, which warrant expires on November 17, 2014, (l) 6,666 shares of common stock underlying a ten-year stock option exercisable at $7.00 per share granted to Lawrence L. Horsch in August 2003, which option expires on August 19, 2013, (m) 2,500 shares of common stock underlying a five-year stock option exercisable at $13.00 per share granted to Blair P. Mowery in August 2004, which option expires on August 26, 2009, (n) 5,000 shares of common stock underlying a ten-year stock option exercisable at $10.00 per share granted to each of Susan L. Critzer and David B. Kaysen in March 2005, which options expires on March 21, 2015, (o) 494,548 shares of common stock underlying seven-year stock options exercisable at $8.90 per share granted outside our stock option plans to members of management, which options expire on April 1, 2012, (p) 49,666 units underlying a five-year warrant exercisable at $4.56 per unit issued to Feltl & Company in connection with its services as our agent in our 2004 private placement, each unit consisting of one share of common stock and a warrant to purchase a share of our common stock at $18.375 per share, which warrant expires on May 21, 2009, (q) 110,291 shares of common stock underlying a ten-year warrant exercisable at $3.40 per share originally issued to PKM in consideration of a February 2005 Credit Agreement, which warrant expires on March 3, 2015, (r) 40,996 shares of common stock underlying a five-year warrant exercisable at $3.25 per share issued to Tower Finance Ltd. in connection with its services as a finder in our 2005 private placement, which warrant expires on April 1, 2010, (s) 6,800 shares of common stock underlying a five-year warrant exercisable at $6.25 per share issued to Tower Finance Ltd. in connection with its services as a finder in our January 2005 bridge financing, which warrant expires on January 13, 2010, and (t) an aggregate of 20,008 shares of common stock underlying warrants exercisable at $18.375 per share issued to Tower Finance Ltd., which warrants expire on April 30, 2009.

ITEM 12 CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Certain Relationships and Related Transactions

Financing Transaction and Lease with PKM Properties, LLC

In April 2003, we sold our building and surrounding land in Inver Grove Heights, Minnesota to PKM Properties, LLC ("PKM"), an entity controlled by Paul K. Miller, one of our directors and one of the largest beneficial owners of our securities. Concurrent with the sale of the property, we entered into a ten-year lease for the property with a base annual rent of $360,000 for the first and second year; $370,800 per year for the third, fourth and fifth year, and $389,340 for the remaining years of the lease subject to an increase for additional interest payable by PKM on its long-term permanent financing of the property, which may increase base monthly rents by up to one-twelfth of the additional annual interest payable by PKM. Assuming we are not in default under the terms of the lease, we have two options to extend the lease for five-year periods upon expiration of the initial ten-year term at a market rate. We also pay under the lease operating costs and real estate taxes. 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. The purpose of the transaction was to retire our bank debt and provide us with additional required working capital.

In June 2005, we entered into a lease termination agreement with PKM. In order to induce PKM, the landlord of our corporate headquarters, to attempt to sell or lease the property to a third party and to terminate the lease with our company, we agreed, among other things, to reimburse PKM for all costs and expenses relating to the lease or the sale of the property, and to termination of the lease on not less than 120 days' notice. We also agreed that, if we request the landlord to accept less than its minimum required net sale proceeds, we would pay a lease termination fee equal to the difference between the landlord's

minimum net sale proceeds and the actual net sale proceeds. We also agreed to pay a lease termination fee if the landlord re-leases the property on economic terms and conditions less desirable than those of the existing lease.

During the fiscal year ended April 30, 2007, we made lease payments to PKM of $494,633.

Financing Transactions involving Whitebox Advisors, LLC and Potomac Capital Management, LLC

On April 20, 2007, we entered into a Secured Note Purchase Agreement with an affiliate of Whitebox Advisors, LLC ("Whitebox"), a beneficial owner of more than 10 percent of our common stock, for the issuance and sale of up to $10.0 million of secured debt in an unregistered transaction. On the same day, we issued and sold $8.0 million of 11% secured debt to Whitebox under this agreement. Such debt is secured by substantially all of our assets. We also issued a five-year warrant to Whitebox for the purchase of 1,200,000 shares of common stock at $4.00 per share. This warrant, which contains a limited cashless exercise provision, has full-ratchet anti-dilution protection for a period of 12 months. Gross proceeds of $8.0 million from the initial closing were reduced by offering costs of $588,152. Whitebox had the right to purchase another $2.0 million of secured debt on the same terms (with equivalent warrant coverage) within the next 45 days.

On June 15, 2007, we entered into a Secured Note Purchase Agreement with Whitebox, Potomac Capital Management, LLC, a beneficial owner of more than 5 percent of our common stock, and other certain accredited investors for the issuance and sale of an aggregate of $4.5 million of 11% secured debt in an unregistered transaction. Under this agreement, Whitebox purchased the $2.0 million note it originally had a right to purchase pursuant to an agreement dated April 20, 2007. Such debt is secured by substantially all of our assets. At closing each investor received a five-year warrant to purchase a number of shares of our common stock equal to 60% of the principal amount invested by such investor divided by $4.00. The warrants have a limited cashless exercise provision, an exercise price of $4.00 per share and full-ratchet anti-dilution protection for a period of 12 months. If we are not permitted to register for resale all of the shares underlying these warrants and the warrant issued at the initial closing, the excluded portion of such warrants will be exercisable on a cashless basis.

The secured debt has a three-year term and an interest rate of 11% per year. During the first year, interest will accrue and be added to the principal balance. At the end of the first year, we will issue a five-year warrant to each investor to purchase the number of shares equal to the quotient obtained by dividing 60% of the accrued interest owed to that investor for the first year by $4.00. During the second and third years, we have the option to pay interest in cash, or have the interest accrue and be added to the principal balance, on a quarterly basis. For each quarter in which we determine that the accrued interest should be added to principal, we will issue additional five-year warrants to purchase the number of shares equal to the quotient obtained by dividing 60% of the accrued interest for the quarter by $4.00. Each of the interest accrual warrants will be exercisable at $4.00 per share, contain cashless exercise provisions, and have full-ratchet anti-dilution protection for a period of 12 months from each warrant's respective date of issuance.

We may prepay the notes in part or in full, subject to a prepayment premium of 8% in the first year, 6% in the second year and 3% in the third year. The prepayment premium does not apply if the prepayment is a result of the change of control. We have also covenanted and agreed that we will not issue any additional 11% secured debt.

The investors are entitled to registration rights on the common stock underlying the warrants issued at the closings. No registration rights apply to common stock underlying the interest accrual warrants. If the required registration statement is not declared effective on or prior to the required effectiveness date, we have agreed to pay the investors an amount as liquidated damages equal to 1 percent of the value of

warrants with registration rights (measured at $4.00 per share) per month (pro-rated for any portion thereof) until such deficiency is remedied.

In addition, on June 15, 2007, we entered into an amendment to our purchase agreement with Whitebox dated April 20, 2007, and an amendment to our warrant agreement with Whitebox dated April 20, 2007. Such amendments were designated to (1) clarify that the initial closing warrant has a cashless right as to any shares the U.S. Securities and Exchange Commission ("SEC") does not permit us to include in the resale registration statement, (2) clarify that any reductions imposed by the SEC in the number of shares covered by the resale registration statement will be made on a pro-rata basis, (3) include a 9.99% limitation on exercise in the initial closing warrant and the interest accrual warrants, and (4) clarify that the interest accrual warrants will have cashless exercise provisions.

At closing of our $4.5 million secured debt issuance on June 15, 2007, we received cash proceeds of $4,230,000 after payment of a 6 percent commission to our placement agent. We also agreed to pay certain additional expenses incurred by Whitebox and the placement agent associated with this transaction.

General

The transactions set forth herein were approved by a majority of our independent, disinterested directors who had access, at our expense, to our legal counsel or independent legal counsel. We believe that all such transactions were made on terms no less favorable to us than we could have obtained from unaffiliated third parties. In the future, all material affiliated transactions will be approved by a majority of our independent, disinterested directors who will have access, at our expense, to our legal counsel or independent legal counsel and will be on terms no less favorable to us than we could obtain from unaffiliated third parties.

Director Independence

Our board is comprised of a majority of "independent" directors as defined in Rule 4200(a)(15) of the Marketplace Rules of the NASDAQ Stock Market. Our independent directors are Susan L. Critzer, Larry G. Haimovitch, David B. Kaysen, Paul K. Miller, J. Robert Paulson, Jr., David A. Chazanovitz and Richard J. Faleschini. Our board determined that the above-described financing and lease transaction with PKM Properties, LLC did not prevent it from reaching a determination that Mr. Miller is independent. Marc P. Flores, our President and Chief Executive Officer, is not an independent director. Lawrence L. Horsch, who served as one of our directors through October 2006, was an independent director.

Our Board of Directors has an audit committee, compensation committee and corporate governance and nominating committee. Each committee consists solely of members who are independent as defined in Rule 4200(a)(15) of the Marketplace Rules of the NASDAQ Stock Market. In addition, each member of the audit committee is independent as defined in Exchange Act Rule 10A-3 and each member of the compensation committee is a non-employee director and is an outside director under the rules of the SEC and the IRS, respectively.

ITEM 13 EXHIBITS

See "Index to Exhibits."

ITEM 14 PRINCIPAL ACCOUNTANT FEES AND SERVICES

Audit and Non-Audit Fees

The following table presents fees for audit and other services provided by Lurie Besikof Lapidus & Company, LLP in fiscal years 2007 and 2006.

	Year Ended	
	April 30, 2007	April 30, 2006
Audit fees(1)	$239,605	$170,509
Audit-related fees(2)	24,765	16,940
Tax fees(3)	4,400	4,200
All other fees	—	—
Total Fees	$268,770	$191,649

(1) Audit fees consist of fees for services provided in connection with the audit of our financial statements, reviews of our quarterly financial statements, and services that are normally provided in connection with statutory and regulatory filings.

(2) Audit-related fees consist of assurance and related services that include, but are not limited to, consultation concerning financial accounting and reporting standards.

(3) Tax fees consist of fees for services provided in connection with the preparation of tax returns.

Pre-Approval Policies and Procedures

All services provided by our independent auditors are subject to pre-approval by the audit committee of our board of directors. The audit committee has authorized each of its members to approve services by our independent auditors in the event there is a need for such approval prior to the next full audit committee meeting. Any interim approval given by an audit committee member must be reported to the audit committee no later than its next scheduled meeting. Before granting any approval, the audit committee (or a committee member if applicable) gives due consideration to whether approval of the proposed service will have a detrimental impact on our auditor's independence. The audit committee pre-approved all services provided by Lurie Besikof Lapidus & Company, LLP in the fiscal years ended April 30, 2007 and 2006.

SIGNATURES

In accordance with Section 13 or 15(d) of the Exchange Act, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Inver Grove Heights, State of Minnesota, on July 25, 2007.

MEDICALCV, INC.

By /s/ MARC P. FLORES
Marc P. Flores, *President, Chief Executive Officer and Director (Principal Executive Officer)*

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENT, that each person whose signature appears below constitutes and appoints Marc P. Flores and Eric Podevels as his or her true and lawful attorney-in-fact and agent, with full powers of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any or all amendments to this report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the U.S. Securities and Exchange Commission, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

In accordance with the Exchange Act, this report has been signed below by the following persons on behalf of the registrant, and in the capacities and on the date indicated.

Signature	Title	Date
/s/ MARC P. FLORES Marc P. Flores	President, Chief Executive Officer and Director (Principal Executive Officer)	July 25, 2007
/s/ EAPEN CHACKO Eapen Chacko	Vice President, Finance and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	July 25, 2007
/s/ SUSAN L. CRITZER Susan L. Critzer	Chairperson of the Board	July 25, 2007
/s/ DAVID A. CHAZANOVITZ David A. Chazanovitz	Director	July 25, 2007
/s/ RICHARD J. FALESCHINI Richard J. Faleschini	Director	July 25, 2007
/s/ LARRY G. HAIMOVITCH Larry G. Haimovitch	Director	July 25, 2007
/s/ DAVID B. KAYSEN David B. Kaysen	Director	July 25, 2007
/s/ PAUL K. MILLER Paul K. Miller	Director	July 25, 2007
/s/ J. ROBERT PAULSON, JR. J. Robert Paulson, Jr.	Director	July 25, 2007

INDEX TO FINANCIAL STATEMENTS

MedicalCV, Inc.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Shareholders
MedicalCV, Inc.
Inver Grove Heights, Minnesota

We have audited the accompanying balance sheets of MedicalCV, Inc. as of April 30, 2007 and 2006, and the related statements of operations, shareholders' equity (deficit) and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of MedicalCV, Inc. as of April 30, 2007 and 2006, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 1 to the financial statements, the Company adopted the provisions of Statement of Financial Accounting Standards No. 123R, *Share-Based Payment*, on May 1, 2006.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the financial statements, the Company has incurred operating losses and negative cash flows from operations in recent years and will require additional funds to finance its working capital and capital expenditure needs. These factors raise substantial doubt about the Company's ability to continue as a going concern. Management's plans regarding these matters are also discussed in Note 2. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ LURIE BESIKOF LAPIDUS & COMPANY, LLP

Minneapolis, Minnesota
July 25, 2007

MEDICALCV, INC.

BALANCE SHEETS

	April 30, 2007	April 30, 2006
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	$ 8,950,983	$ 10,351,570
Prepaid expenses and other current assets	280,150	242,975
Current assets of discontinued operations	87,323	89,782
TOTAL CURRENT ASSETS	9,318,456	10,684,327
PROPERTY, PLANT AND EQUIPMENT, net	788,835	740,010
DEFERRED FINANCING COSTS, net	349,053	50,942
OTHER NONCURRENT ASSETS	15,600	23,400
NONCURRENT ASSETS OF DISCONTINUED OPERATIONS	—	87,323
TOTAL ASSETS	$ 10,471,944	$ 11,586,002
LIABILITIES, CONVERTIBLE PREFERRED STOCK AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES		
Current amount of related party lease obligation	$ 334,633	$ 322,586
Accounts payable	685,753	605,313
Accrued expenses	353,640	377,507
TOTAL CURRENT LIABILITIES	1,374,026	1,305,406
RELATED PARTY SECURED PROMISSORY NOTE, net of discount	4,248,173	—
RELATED PARTY LEASE OBLIGATION, less current amount	2,207,600	2,542,233
TOTAL LIABILITIES	7,829,799	3,847,639
COMMITMENTS AND CONTINGENCIES		
5% SERIES A REDEEMABLE CONVERTIBLE PREFERRED STOCK		
$.01 par value; stated value $10,000 per share; 1,900 shares authorized; no shares issued and outstanding	—	—
SHAREHOLDERS' EQUITY		
Preferred stock; $.01 par value; 998,100 shares authorized; no shares issued and outstanding	—	—
Common stock; $.01 par value; 24,000,000 shares authorized; 9,837,224 and 9,122,946 shares issued and outstanding	98,372	91,229
Additional paid-in capital	62,603,147	55,088,734
Deferred stock-based compensation	—	(98,512)
Accumulated deficit	(60,059,374)	(47,343,088)
TOTAL SHAREHOLDERS' EQUITY	2,642,145	7,738,363
TOTAL LIABILITIES, CONVERTIBLE PREFERRED STOCK AND SHAREHOLDERS' EQUITY	$ 10,471,944	$ 11,586,002

See notes to financial statements.

MEDICALCV, INC.

STATEMENTS OF OPERATIONS

	Years ended April 30, 2007	2006
SALES	$ 31,500	$ —
COST OF GOODS SOLD	1,890	—
GROSS PROFIT	29,610	—
OPERATING EXPENSES		
Sales and marketing	1,426,356	525,384
General and administrative	4,697,319	3,459,916
Research and development	6,668,929	3,471,241
TOTAL OPERATING EXPENSES	12,792,604	7,456,541
LOSS FROM OPERATIONS	(12,762,994)	(7,456,541)
OTHER INCOME (EXPENSE)		
Interest income	286,263	384,773
Interest expense	(185,553)	(177,401)
Other income	4,280	13,902
Decrease in fair value of putable warrants	—	16,549,457
TOTAL OTHER INCOME	104,990	16,770,731
(LOSS) INCOME FROM CONTINUING OPERATIONS	(12,658,004)	9,314,190
LOSS FROM DISCONTINUED OPERATIONS	(58,282)	(81,800)
NET (LOSS) INCOME	$(12,716,286)	$ 9,232,390
NET (LOSS) INCOME TO COMMON SHAREHOLDERS		
Net (loss) income	$(12,716,286)	$ 9,232,390
Inducement to acquire redeemable convertible preferred stock	—	(13,579,979)
Redeemable convertible preferred stock cash dividends	—	(588,542)
NET LOSS TO COMMON SHAREHOLDERS	$(12,716,286)	$ (4,936,131)
NET LOSS PER COMMON SHARE—CONTINUING OPERATIONS, AFTER PREFERRED DIVIDENDS		
Basic	$ (1.33)	$ (1.28)
Diluted	(1.33)	(3.75)
NET LOSS PER COMMON SHARE—DISCONTINUED OPERATIONS		
Basic	$ (0.01)	$ (0.02)
Diluted	(0.01)	(0.01)
NET LOSS PER COMMON SHARE		
Basic	$ (1.34)	$ (1.30)
Diluted	(1.34)	(3.76)
WEIGHTED AVERAGE COMMON SHARES OUTSTANDING		
Basic	9,514,328	3,806,112
Diluted	9,514,328	5,711,893

See notes to financial statements.

MEDICALCV, INC.

STATEMENTS OF SHAREHOLDERS' EQUITY (DEFICIT)

	Common Stock		Additional Paid-In	Deferred Stock-Based	Accumulated	
	Shares	Amount	Capital	Compensation	Deficit	Total
BALANCE AT APRIL 30, 2005	1,084,958	$10,850	$23,484,124	$ —	$(42,406,957)	$(18,911,983)
Net income	—	—	—	—	9,232,390	9,232,390
Warrants exercised, net of costs:						
Putable warrants	2,503,791	25,038	17,477,736	—	—	17,502,774
Other—cashless	20,008	200	(200)	—	—	—
Acquisition of redeemable convertible preferred stock	5,447,814	54,478	13,525,501	—	—	13,579,979
Conversion of redeemable convertible preferred stock	66,000	660	(660)	—	—	—
Inducement to acquire redeemable convertible preferred stock	—	—	—	—	(13,579,979)	(13,579,979)
Preferred stock cash dividends	—	—	—	—	(588,542)	(588,542)
Warrant valuation after removal of put option	—	—	375,518	—	—	375,518
Stock option exercised	375	3	1,122	—	—	1,125
Stock options issued for technical advisory services	—	—	124,802	(124,802)	—	—
Modification of stock options in connection with severance	—	—	100,791	(100,791)	—	—
Amortization of stock-based compensation	—	—	—	127,081	—	127,081
BALANCE AT APRIL 30, 2006	9,122,946	91,229	55,088,734	(98,512)	(47,343,088)	7,738,363
Net loss	—	—	—	—	(12,716,286)	(12,716,286)
Issuance of warrants in connection with related party secured promissory note, net of offering costs	—	—	3,524,334	—	—	3,524,334
Warrant expense related to non-cash interest accrual on related party secured promissory note	—	—	13,247	—	—	13,247
Issuance of common stock and warrants, net of offering costs	714,286	7,143	2,182,857	—	—	2,190,000
Issuance of warrants in connection with technology purchase agreement	—	—	15,300	—	—	15,300
Reclassification as a result of adoption of SFAS 123R	—	—	(98,512)	98,512	—	—
Stock-based compensation expense	—	—	1,877,416	—	—	1,877,416
Fractional share interests as a result of reverse stock split	(8)	—	(229)	—	—	(229)
BALANCE AT APRIL 30, 2007	9,837,224	$98,372	$62,603,147	$ —	$(60,059,374)	$ 2,642,145

See notes to financial statements.

MEDICALCV, INC.

STATEMENTS OF CASH FLOWS

	Years ended April 30, 2007	2006
OPERATING ACTIVITIES		
Net (loss) income	$(12,716,286)	$ 9,232,390
Adjustments to reconcile net (loss) income to net cash used by operating activities:		
Stock-based compensation	1,877,416	127,081
Depreciation	166,192	279,635
Impairment of fixed assets	—	154,341
Gain from the sales of property, plant and equipment	(45,973)	(138,474)
Amortization of discount on related party secured promissory note	25,652	—
Accrued interest and warrant expense on related party secured promissory note	39,768	—
Amortization of deferred financing costs	10,375	7,284
Warrant expense related to technology purchase agreement	15,300	—
Decrease in fair value of putable warrants	—	(16,549,457)
Provision for doubtful accounts	—	23,935
Changes in operating assets and liabilities:		
Accounts receivable	—	533,356
Inventories	—	228,665
Prepaid expenses and other assets	60,407	40,677
Accounts payable	80,440	13,430
Accrued expenses	(23,867)	188,112
NET CASH USED BY OPERATING ACTIVITIES	(10,510,576)	(5,859,025)
INVESTING ACTIVITIES		
Purchases of property, plant and equipment	(219,712)	(350,418)
Proceeds from the sales of property, plant and equipment	50,668	346,807
NET CASH USED BY INVESTING ACTIVITIES	(169,044)	(3,611)
FINANCING ACTIVITIES		
Proceeds from issuance of related party secured promissory note and warrants, net of offering costs	7,411,848	—
Principal payments under related party lease obligation	(322,586)	(271,313)
Payments of fractional share interests	(229)	—
Proceeds from issuance of common stock and warrants, net of offering costs	2,190,000	—
Proceeds from exercise of warrants, net of costs	—	6,435,140
Proceeds from exercise of stock option	—	1,125
Preferred stock cash dividends	—	(588,542)
NET CASH PROVIDED BY FINANCING ACTIVITIES	9,279,033	5,576,410
NET DECREASE IN CASH AND CASH EQUIVALENTS	(1,400,587)	(286,226)
CASH AND CASH EQUIVALENTS		
Beginning of year	10,351,570	10,637,796
End of year	$ 8,950,983	$ 10,351,570
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION		
Cash paid for interest	$ 109,758	$ 177,401
NONCASH INVESTING AND FINANCING ACTIVITIES		
Fair value of warrants issued in connection with related party secured promissory note	$ 3,804,000	—
Inducement to acquire redeemable convertible preferred stock	—	$ 13,579,979
Reduction of fair value of putable warrants upon exercise of warrants and removal of put option	—	$ 11,443,152
Stock options issued for technical advisory services	—	$ 124,802
Modification of stock options in connection with severance	—	$ 100,791
Cashless exercise of warrants	—	$ 200

See notes to financial statements.

1. Basis of Presentation and Significant Accounting Policies

Nature of Business

MedicalCV, Inc. (the "Company") is a medical device company that develops, manufactures and sells surgical ablation systems that utilize a laser energy technology platform to create precise lesions, or scars, on cardiac and soft tissues. The Company is headquartered in Inver Grove Heights, Minnesota and was incorporated in Minnesota on March 30, 1992. In April 2005, the Company exited the mechanical heart valve business.

Fiscal Year

References in this report to a particular fiscal year are to the year ended April 30 of that calendar year. The Company's interim periods end on the last day of the month.

Reclassifications

Certain reclassifications have been made to the fiscal year 2006 financial statements to conform to the fiscal year 2007 classification. The reclassifications had no impact on net income, net loss to common shareholders, or shareholders' equity.

Use of Estimates

The preparation of these financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that impact the reported amounts and disclosures in the financial statements and accompanying notes. Actual results could differ from those estimates. Significant management estimates relate to the valuation allowance on the deferred tax assets and the estimated fair value of options and warrants for the purchase of the Company's common stock.

Fair Value of Financial Instruments

The carrying amounts of financial instruments consist primarily of cash and cash equivalents, accounts payable, accrued expenses, related party secured promissory note, and related party lease obligation which approximate their fair values.

Cash and Cash Equivalents

Cash and cash equivalents consist of highly liquid investments that are readily convertible into cash. The Company considers securities purchased with maturities of three months or less to be cash equivalents.

Revenue Recognition

The Company generates 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, such as installation set-up or user training. There is no right of return unless the product is defective, damaged, or does not perform according to technical specifications.

Property, Plant and Equipment

Property, plant and equipment are stated at cost. Depreciation is computed using the straight-line method over the estimated useful lives of the related assets. The building is depreciated over a 30-year life. Machinery and equipment, furniture and fixtures, and computer equipment and software are depreciated over their three- to five-year lives. Maintenance and repairs are charged to current operations when incurred. The cost and related accumulated depreciation of assets disposed of are removed from the related accounts and any resulting gains or losses are included in the statement of operations.

Property, plant and equipment, excluding property and equipment of discontinued operations, consisted of the following at April 30:

	2007	2006
Land	$ 182,000	$ 182,000
Building	1,251,601	1,251,601
Machinery and equipment	186,126	476,931
Furniture and fixtures	58,819	12,743
Computer equipment and software	210,716	242,208
	1,889,262	2,165,483
Accumulated depreciation	(1,100,427)	(1,425,473)
	$ 788,835	$ 740,010

Long-Lived Assets

All long-lived assets are reviewed when events or changes in circumstances indicate that the carrying amounts of such assets may not be recoverable. This evaluation is performed at least annually. An impairment loss is recognized when estimated undiscounted cash flows to be generated by those assets are less than the carrying value of the assets. When an impairment loss is recognized, the carrying amount is reduced to its estimated fair value based on appraisals or other reasonable methods to estimate fair value.

Deferred Financing Costs

Deferred financing costs consisted of the following at April 30:

	2007	2006
Deferred financing costs	$380,777	$ 72,291
Accumulated amortization	(31,724)	(21,349)
	$349,053	$ 50,942

Deferred financing costs are amortized using the straight-line method over the respective term of the related financing. The Company expects amortization expense related to these deferred charges to be as follows:

Years ended April 30,	
2008	$110,113
2009	110,113
2010	107,021
2011	7,284
2012	7,284
Thereafter	7,238
	$349,053

Research and Development

Research and development costs are expensed as incurred and relate primarily to prototype design, quality verification testing, pre-commercialization development, and evaluation unit testing of the SOLAR™ Surgical Ablation System. The Company incurred research and development costs of $6,668,929 and $3,471,241 in the fiscal years ended April 30, 2007 and 2006, respectively, which are included in the statement of operations. External development expense of $1,824,189 and $526,224 in the fiscal years ended April 30, 2007 and 2006, respectively, was performed by an unrelated third party on behalf of the Company and is included in research and development.

Stock-Based Compensation

On May 1, 2006, the Company adopted Statement of Financial Accounting Standards ("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, the Company recognizes compensation expense during the service period of stock-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, adopted by the Company, prior period results were not restated. 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. The Company has also implemented the SEC interpretations in Staff Accounting Bulletin ("SAB") No. 107, *Share-Based Payments,* in connection with the adoption of SFAS No. 123R.

Stock-based compensation expense is classified in the same expense lines as cash compensation in accordance with SAB No. 107. Stock-based compensation expense included in the statement of operations is as follows:

	Year ended April 30, 2007
Sales and marketing	$ 87,376
General and administrative	1,281,681
Research and development(1)	508,359
Total stock-based compensation expense	$1,877,416
Impact of adopting SFAS No. 123R on reported basic and diluted net loss per share	$ (0.20)

(1) Includes $73,101 of stock-based compensation expense 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.

The Company recognizes compensation expense for stock-based awards on a straight-line basis over the requisite service period of the award. The amount of stock-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 stock-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

expense, freight, handling costs, and wasted material (spoilage). Among other provisions, the new rule requires that items such as idle facility expense, excessive spoilage, double freight, and rehandling costs be recognized as current-period charges if they meet the criterion of "so abnormal" as stated in Accounting Research Bulletin ("ARB") No. 43. Additionally, SFAS No. 151 requires that the allocation of fixed production overhead to the costs of conversion be based on the normal capacity of the production facilities. SFAS No. 151 is effective for inventory costs incurred during fiscal years beginning after June 15, 2005. The adoption of SFAS No. 151 on May 1, 2006 did not have a material impact on the Company's financial statements.

In June 2006, the FASB issued Interpretation No. 48 ("FIN 48"), *Accounting for Uncertainty in Income Taxes—an interpretation of FASB Statement No. 109*. FIN 48 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement 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. FIN 48 is effective for fiscal years beginning after December 15, 2006. The Company is in the process of evaluating the impact of the adoption of FIN 48 on the financial statements for the fiscal year beginning May 1, 2007.

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. The Company does not anticipate the adoption of SFAS No. 157 on May 1, 2008 will have a material impact on the Company's financial statements.

In September 2006, the SEC issued SAB No. 108, *Considering the Effects of Prior Year Misstatements When Quantifying Misstatements in Current Year Financial Statements*, which provides interpretive guidance on how the effects of the carryover or reversal of prior year misstatements should be considered in quantifying a current year misstatement. The SEC staff believes that registrants should quantify errors using both a balance sheet and an income statement approach and evaluate whether either approach results in quantifying a misstatement that, when all relevant quantitative and qualitative factors are considered, is material. This pronouncement is effective for fiscal years ending after November 15, 2006. The adoption of SAB No. 108 in the fiscal year ended April 30, 2007 did not have a material impact on the Company's 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. The Company does not anticipate the adoption of SFAS No. 159 on May 1, 2008 will have a material impact on the Company's financial statements.

2. Going Concern

The Company's financial statements as of and for the fiscal years ended April 30, 2007 and 2006 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. At April 30, 2007, the Company had an accumulated deficit of $60,059,374. The level of cash required for operations during fiscal year 2008 is difficult to predict, and management anticipates that continued development and full commercialization of its new product 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 new

Research and Development

Research and development costs are expensed as incurred and relate primarily to prototype design, quality verification testing, pre-commercialization development, and evaluation unit testing of the SOLAR™ Surgical Ablation System. The Company incurred research and development costs of $6,668,929 and $3,471,241 in the fiscal years ended April 30, 2007 and 2006, respectively, which are included in the statement of operations. External development expense of $1,824,189 and $526,224 in the fiscal years ended April 30, 2007 and 2006, respectively, was performed by an unrelated third party on behalf of the Company and is included in research and development.

Stock-Based Compensation

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Impact of adopting SFAS No. 123R on reported basic and diluted net loss per share	$ (0.20)

(1) Includes $73,101 of stock-based compensation expense 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.

The Company recognizes compensation expense for stock-based awards on a straight-line basis over the requisite service period of the award. The amount of stock-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 stock-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. The Company uses historical forfeitures and employee turnover to estimate the number of options that will actually vest. The Company reevaluates this estimate periodically and adjusts the forfeiture rate on a prospective basis as necessary.

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.

As of April 30, 2007, there was $2,911,610 of total unrecognized stock-based compensation cost and the Company expects that cost to be recognized over a weighted-average recognition period of 2.2 years.

Prior to the adoption of SFAS No. 123R, the Company accounted for stock options granted to employees using the intrinsic value method under the guidance of APB No. 25, and provided pro forma disclosure as required by SFAS No. 123. Under the intrinsic value method of accounting, no compensation expense was recognized in the statement of operations when the exercise price of the employee stock option award equaled or was greater than the market price of the underlying common stock at the date of grant, and the measurement date of the option grant was certain. The measurement date was certain when the date of grant was fixed and determinable. Compensation cost for employee stock options was measured as the excess, if any, of the quoted market price of the stock at the date of grant over the amount that the employee is required to pay for the stock.

In accordance with the modified prospective application transition method of SFAS No. 123R, financial results for prior periods have not been restated. For purposes of the pro forma disclosures required by SFAS No. 123, the Company amortized the grant-date fair value of employee stock options over the vesting period and accounted for forfeitures as they occurred. The following table illustrates the effect on net loss and net loss per share as if the Company had recorded compensation expense for employee stock options under the fair value based method for the fiscal year ended April 30, 2006:

	Year ended April 30, 2006
Net loss to common shareholders—as reported	$(4,936,131)
Add: Stock-based compensation included in net loss	127,081
Less: Stock-based compensation determined under the fair value based method for all awards	(1,407,404)
Net loss to common shareholders—pro forma	$(6,216,454)
Basic net loss per common share	
As reported	$ (1.30)
Pro forma	(1.63)
Diluted net loss per common share	
As reported	$ (3.76)
Pro forma	(3.99)

Income Taxes

Deferred income tax assets and liabilities are recognized for the expected future tax consequences of events that have been included in the financial statements or tax returns. Deferred income tax assets and liabilities are determined based on differences between the financial statement and tax bases of assets and liabilities using currently enacted tax rates in effect for the years in which the differences are expected to reverse. In evaluating the ultimate realization of deferred tax assets, management considers whether it is more likely than not that the deferred income tax assets will be realized. 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. Management establishes a valuation allowance if it is more likely than not that all or a portion of the tax asset will not be utilized.

Credit Risk

The Company maintains cash and cash equivalents in bank accounts which may exceed federally insured limits. The Company has not experienced any losses on such accounts and believes it is not exposed to any significant credit risk on cash and cash equivalents.

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 and options 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 in the fiscal year ended April 30, 2007 due to the loss from continuing operations which would cause the potentially dilutive shares to be anti-dilutive. Certain warrants outstanding during the fiscal year ended April 30, 2006 were potentially dilutive and considered to be common stock equivalents. As a result, the net loss to common shareholders in the fiscal year ended April 30, 2006 was adjusted for the decrease in fair value of putable warrants and the weighted average number of shares used for the basic net loss per share computation was increased by the shares issuable under the warrants. The computation of diluted net loss per share was based on the following:

	Years ended April 30,	
	2007	2006
Numerator:		
Net loss to common shareholders for basic net loss per common share	$(12,716,286)	$ (4,936,131)
Effect of dilutive securities—decrease in fair value of putable warrants	—	(16,549,457)
Net loss to common shareholders for diluted loss per common share	$(12,716,286)	$(21,485,588)

	Years ended April 30,	
	2007	2006
Denominator:		
Weighted average shares outstanding for basic net loss per common share	9,514,328	3,806,112
Effect of dilutive securities—shares issuable under warrant agreements	—	1,905,781
Weighted average shares outstanding for diluted net loss per common share	9,514,328	5,711,893

Options and warrants outstanding to purchase 2,210,157 and 1,887,880 shares of common stock were excluded from the computation for the fiscal years ended April 30, 2007 and 2006, respectively, because they were anti-dilutive.

Recent Accounting Pronouncements

In November 2004, the Financial Accounting Standards Board ("FASB") issued SFAS No. 151, *Inventory Costs—An Amendment of ARB No. 43, Chapter 4.* SFAS No. 151 amends the guidance in ARB No. 43, Chapter 4, "Inventory Pricing," to clarify the accounting for abnormal amounts of idle facility

expense, freight, handling costs, and wasted material (spoilage). Among other provisions, the new rule requires that items such as idle facility expense, excessive spoilage, double freight, and rehandling costs be recognized as current-period charges if they meet the criterion of "so abnormal" as stated in Accounting Research Bulletin ("ARB") No. 43. Additionally, SFAS No. 151 requires that the allocation of fixed production overhead to the costs of conversion be based on the normal capacity of the production facilities. SFAS No. 151 is effective for inventory costs incurred during fiscal years beginning after June 15, 2005. The adoption of SFAS No. 151 on May 1, 2006 did not have a material impact on the Company's financial statements.

In June 2006, the FASB issued Interpretation No. 48 ("FIN 48"), *Accounting for Uncertainty in Income Taxes—an interpretation of FASB Statement No. 109*. FIN 48 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement 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. FIN 48 is effective for fiscal years beginning after December 15, 2006. The Company is in the process of evaluating the impact of the adoption of FIN 48 on the financial statements for the fiscal year beginning May 1, 2007.

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. The Company does not anticipate the adoption of SFAS No. 157 on May 1, 2008 will have a material impact on the Company's financial statements.

In September 2006, the SEC issued SAB No. 108, *Considering the Effects of Prior Year Misstatements When Quantifying Misstatements in Current Year Financial Statements*, which provides interpretive guidance on how the effects of the carryover or reversal of prior year misstatements should be considered in quantifying a current year misstatement. The SEC staff believes that registrants should quantify errors using both a balance sheet and an income statement approach and evaluate whether either approach results in quantifying a misstatement that, when all relevant quantitative and qualitative factors are considered, is material. This pronouncement is effective for fiscal years ending after November 15, 2006. The adoption of SAB No. 108 in the fiscal year ended April 30, 2007 did not have a material impact on the Company's 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. The Company does not anticipate the adoption of SFAS No. 159 on May 1, 2008 will have a material impact on the Company's financial statements.

2. Going Concern

The Company's financial statements as of and for the fiscal years ended April 30, 2007 and 2006 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. At April 30, 2007, the Company had an accumulated deficit of $60,059,374. The level of cash required for operations during fiscal year 2008 is difficult to predict, and management anticipates that continued development and full commercialization of its new product 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 new

product. 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 financial statements do not include any adjustments that might result from the outcome of this uncertainty.

3. Related Party Secured Promissory Note

On April 20, 2007, the Company entered into a Secured Note Purchase Agreement with an affiliate of Whitebox Advisors, LLC ("Whitebox"), a beneficial owner of more than 10% of the Company's common stock, for the issuance and sale of an $8,000,000 11% Secured Promissory Note ("$8M Note") and a warrant for the purchase of 1,200,000 shares of the Company's common stock ("1st Closing Warrant"). The 1st Closing Warrant has a term of five years and has an exercise price of $4.00 per share, subject to basic and, for 12 months, full-ratchet anti-dilution adjustments. The $8M Note and any accrued but unpaid interest is due and payable three years following the date of the note. During the first year, interest on the $8M Note will accrue and be added to the principal balance of the note. Within 30 days following the end of the first year, the Company is obligated to issue to Whitebox 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, the Company has an option each quarter to either (i) pay the accrued interest on the 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 Whitebox, 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.

The Company has the right to prepay the $8M Note, 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 $8M Note is a result of a change of control.

The Secured Note Purchase Agreement includes a restrictive covenant that the Company will not issue more than an aggregate of $12,500,000 of 11% secured notes. As a result of the second close discussed in Note 11, no additional 11% secured notes may be issued. The notes are secured by a first priority security interest in the Company's assets. In addition, the Company is required to file a registration statement within 15 days following the due date of the Annual Report on Form 10-KSB for the fiscal year ended April 30, 2007 to enable the resale of the shares of common stock underlying the closing warrant. The Company is not required to register for resale the shares of common stock underlying the interest accrual warrants. The Company is required to use commercially reasonable efforts to cause such registration statement to be declared effective by the SEC and 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. If the registration statement is not declared effective on or prior to the required effective date, then the Company is required to pay to each holder as liquidated damages for each month an amount equal to 1% per month, pro rated for any portion thereof, of the aggregate value of the warrant shares measured at $4.00 per share. Refer to Note 11 for certain provisions that were amended subsequent to the April 20, 2007 closing of the $8M Note. An accrual for potential liquidated damages is not considered necessary at April 30, 2007 since it is probable that the Company will satisfy the registration statement requirement.

The Company used the Black-Scholes-Merton formula to estimate the fair value of the 1st Closing Warrant, which has an exercise price of $4.00 per share, for the purchase of 1,200,000 shares of the Company's common stock, using the following assumptions:

	1st Closing Warrant
Expected term	5.0 years
Volatility	106.7%
Risk free interest rate	4.6%
Expected dividend rate	0%

The fair value of the 1st Closing Warrant was estimated to be $3,804,000 and was recorded as a discount on the $8M Note. Using the effective interest rate method, the $3,804,000 discount will be amortized into interest expense over the 3-year term of the debt. The impact of the discount and 11% interest rate on the principal balance results in an effective interest rate of 41% for the $8M Note. Interest expense of $65,420, which included amortization of the discount and accrued interest and warrant expense, was included in the statement of operations for the fiscal year ended April 30, 2007.

The Company paid a 6% commission on the gross proceeds to the placement agent and certain expenses incurred by the holder and placement agent associated with this transaction. Total financing costs of $588,152 were incurred by the Company associated with this transaction. The Company capitalized $308,486 as deferred financing costs and this amount will be amortized into interest expense over the 3-year term of the $8M Note. The remaining $279,666 in financing costs reduced the amount recorded in additional paid-in capital associated with the fair value of the 1st Closing Warrant.

The $8M Note balance outstanding at April 30, 2007 consisted of the following:

11% $8M Secured Promissory Note due 2010, plus accrued interest	$ 8,026,521
Unamortized discount remaining	(3,778,348)
Net balance at April 30, 2007	$ 4,248,173

4. Related Party Lease Obligation

Simultaneous with the sale of the Company's land and building in April 2003 to PKM Properties, LLC ("PKM"), an entity controlled by Paul K Miller, the Company entered into a lease with PKM to lease back the building and a portion of the land. Mr. Miller is one of the Company's directors and one of the largest beneficial owners of the Company's securities. The lease has a ten-year initial term with options for the Company to extend the lease up to ten additional years. Under certain conditions, the Company also has an option to purchase the building at the end of the initial ten-year term at the fair value at that time. The Company is responsible for maintenance and operating costs, utilities and real estate taxes under the lease. In addition, the lease makes it the Company's 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.

Due to the Company's continued involvement with the property, including the ability to buy back the property at a future date, the transaction is accounted for as a financing of the property sold and leased back. Accordingly, the land and building continue to be presented as part of the Company's property, plant and equipment balance and had a net book value of $534,598 (gross value of $1,433,601 net of accumulated depreciation of $899,003) at April 30, 2007. The related party lease obligation balance at April 30, 2007 of $2,542,233 represents the remaining minimum payment amounts, excluding executory costs, due to PKM for the initial ten year term discounted at 4%, and additional payments to be paid to PKM for the Dakota Electric Association and Dakota County obligations assumed by PKM.

Scheduled maturities of the related party lease obligation are as follows:

Years ending April 30,	Amount
2008	$ 334,633
2009	366,042
2010	352,991
2011	355,251
2012	352,369
Thereafter	780,947
	$2,542,233

5. Commitments

Operating Lease

The Company has an operating lease for a certain piece of office equipment, which expires in fiscal year 2011. At the end of the initial 60-month lease term, the Company has the option to purchase the equipment at the fair market value, renew the lease, or return the equipment.

Rental expense, excluding tax, maintenance, and insurance, under the operating lease was $5,530 and $5,069 in fiscal year 2007 and 2006, respectively. The future minimum lease payments, excluding executory costs, are $5,530 in fiscal years 2008-2010, and $460 in fiscal year 2011.

Employment Agreements

Employment agreements with six officers of the Company as of April 30, 2007 contain a provision for lump sum 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.

Former Vice President, Finance and Chief Financial Officer

In April 2006, the Company entered into an amendment to the employment agreement ("First Amendment") with John H. Jungbauer, then the Company's Vice President, Finance and Chief Financial Officer, to reflect the mutual decision reached concerning Mr. Jungbauer's departure from the Company. Mr. Jungbauer's employment ceased effective at the close of business on July 31, 2006. A severance payment of $100,000 was paid on July 31, 2006 and an additional $100,000 was paid to Mr. Jungbauer on January 2, 2007. In addition to these severance payments, the Company agreed to pay or reimburse Mr. Jungbauer for medical (COBRA) benefits. The Company recorded an expense of $94,291 in the first quarter of fiscal year 2007 and $131,793 in fiscal year 2006 related to the severance payments, related payroll taxes, and medical benefits.

Severance charges in fiscal year 2006	$ 131,793
Balance as of April 30, 2006	131,793
Severance charges in fiscal year 2007	94,291
Cash usage in fiscal year 2007	(221,350)
Balance as of April 30, 2007	$ 4,734

In connection with the First Amendment, the Company agreed to amend Mr. Jungbauer's stock option agreements to provide that his options, to the extent vested on the termination date, would be exercisable for a period of twelve months following the termination of Mr. Jungbauer's employment. The original terms of Mr. Jungbauer's stock option agreements for the purchase of 144,012 shares of the

Company's common stock provided that he had three months following termination of employment to exercise the vested portions. The Company accounted for the modification in accordance with the provisions of APB No. 25 and recorded stock-based compensation expense of $87,353 in fiscal year 2006 to reflect the intrinsic value of the excess of the market price of the Company's common stock at the date of modification over the exercise price of the vested stock options.

In July 2006, the Company entered into a second amendment to the employment agreement ("Second Amendment") with Mr. Jungbauer to retroactively rescind the provision in the First Amendment that provided Mr. Jungbauer twelve months following termination of employment to exercise the vested portions of his stock options and revert to the original terms of the stock option agreements that provided Mr. Jungbauer three months following termination of employment to exercise the vested portions thereof. Options held by Mr. Jungbauer to purchase 44,065 shares of the Company's common stock had vested as of July 31, 2006. The Company accounted for the subsequent modification of the exercise period in fiscal year 2007 in accordance with the provisions of SFAS No. 123R. Accordingly, no incremental compensation was recorded in fiscal year 2007 as the fair value of the modified stock option agreements was less than the fair value immediately before the modification. Mr. Jungbauer's options expired unexercised on October 31, 2006.

LightWave Technology Purchase Agreement

In August 2003, the Company entered into a technology purchase agreement with LightWave Ablation Systems, Inc. ("LightWave") and its principals, one of whom became an employee of the Company, relating to the 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 atrial fibrillation. The Company agreed to use its 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 the Company.

The Company paid LightWave an initial standstill payment consisting of 1,500 shares of the Company's common stock, $10,000 upon closing and an additional $30,000 in installments in fiscal year 2004 and 2005. An additional $125,000 was paid to LightWave in January 2006. The Company will be obligated to pay an additional $385,000 within 45 days following the Company's achievement of $1,500,000 of cumulative gross sales of disposable products. In addition, at closing, during fiscal year 2004, the Company issued to LightWave a warrant for the purchase of 2,500 shares of the Company's common stock at $14.60 per share and, during fiscal year 2005, a warrant for the purchase of 2,500 shares of the Company's common stock at $14.60 per share upon receiving an FDA 510(k) clearance. During fiscal year 2007, the Company issued a warrant for the purchase of 2,500 shares of the Company's 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 the Company's common stock at $14.60 per share due to the first commercial sale of the product. Using the Black-Scholes-Merton formula to estimate the fair value of the warrants, the Company recorded an expense of $15,300 in fiscal year 2007 related to the warrants issued in fiscal year 2007.

Following November 29, 2005, the date of the first commercial sale of the ATRILAZE™ Surgical Ablation System ("ATRILAZE") single-use device, the Company agreed to make payments to LightWave for ten years equal to 6% of net sales of such product in countries in which the Company has patent protection, including the United States, and 4% of net sales of such product in countries in which there is no patent protection. The payments are due within 60 days following each fiscal quarter. Commencing with the second year following the first commercial sale on November 29, 2005, the Company is required to make minimum annual payments as follows:

Annual period ending	Minimum Annual Payment
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 annual payments	$2,325,000

If the Company fails in any year to pay the minimum annual payments, the Company may be obligated to grant LightWave a nonexclusive right to use the technology acquired from LightWave, or pay LightWave the difference between payments actually made and minimum payments due for a given year. If the Company discontinues the development or marketing of the product, the Company would have no further obligation to make the minimum annual payments due to LightWave. However, LightWave may, upon written request, obtain from the Company a license to use the intellectual property or, at the Company's option, it may assign the rights in the intellectual property to LightWave.

6. Income Taxes

The Company did not have income tax expense in the fiscal year ended April 30, 2007 as it did not have any taxable income during the fiscal year. The Company did not have income tax expense in the fiscal year ended April 30, 2006 because the book income was more than offset by permanent tax differences, primarily relating to the decrease in fair value of putable warrants.

Income tax computed at the U.S. federal statutory rate reconciled to the effective tax rate is as follows:

	Years ended April 30,	
	2007	2006
Taxes at statutory tax rate	(36)%	36%
Permanent differences	0%	(65)%
Timing differences	6%	1%
Effect of net operating loss carryforwards	30%	28%
Effective tax rate	0%	0%

The components of deferred income taxes are as follows:

	April 30, 2007	April 30, 2006
Federal net operating loss carryforwards	$ 16,379,197	$ 12,565,737
State net operating loss carryforwards	1,171,035	612,807
Research and experimentation credit carryforwards	478,226	466,533
Other carryforwards	11,937	11,767
Stock-based compensation	731,896	45,749
Other	29,122	(136,962)
Net deferred tax assets	18,801,413	13,565,631
Valuation allowance	(18,801,413)	(13,565,631)
Net deferred tax asset	$ —	$ —

The net change in the total valuation allowance was $5,235,782 and $2,786,696 during the fiscal years ended April 30, 2007 and 2006, respectively.

The Company established valuation allowances to fully offset net deferred tax assets due to the uncertainty of the Company's ability to generate the future taxable income necessary to realize these net deferred tax assets, particularly considering the Company's history of significant operating losses. In addition, future utilization of available net operating loss carryforwards may be limited under Internal Revenue Code Section 382 as a result of changes in ownership that have or may result from the issuance of common stock, preferred stock, or options and warrants for the purchase of common stock.

The Company's federal net operating loss carryforwards of approximately $45,000,000 and state net operating loss carryforwards of approximately $18,000,000 expire in various fiscal years from 2012 through 2027. Available research and experimentation credit carryforwards, represent federal and state amounts with expiration dates in fiscal years 2011 through 2025.

7. Shareholders' Equity

Reverse Stock Split

On May 31, 2006, the Company effected a reverse stock split pursuant to which every ten shares of common stock and every ten shares of preferred stock were combined into one share of common stock and one share of preferred stock, respectively, without any change in the par value of the shares. The authorized capital stock was reduced in a like manner. No fractional shares were issued as a result of the reverse split, and $229 was paid for fractional share interests. The reverse split was approved by the Company's board of directors without shareholder approval in accordance with the requirements of Minnesota law. Historical data gives retroactive effect to this reverse stock split.

Registration Statement for Public Offering of Common Stock

On August 8, 2006, the Company requested withdrawal of its registration statement on Form SB-2 originally filed with the SEC on May 19, 2006 related to a proposed public offering of common stock. Due to unsettled conditions in the equity markets, the Company decided not to pursue a public offering at that time.

Private Placement of Common Stock and Warrants

On October 13, 2006, pursuant to the terms of a Securities Purchase Agreement, the Company issued 714,286 shares of common stock and warrants for the purchase of an aggregate of 178,571 shares of common stock to accredited investors. Gross proceeds of $2,500,000 from the private placement were reduced by offering costs of $310,000 resulting in $2,190,000 of net proceeds. The warrants, which have an exercise period of five years, had an initial exercise price of $4.365 per share, subject to basic and, for 9 months, full-ratchet anti-dilution adjustments. As a result of anti-dilution adjustments through April 30, 2007, the warrants have an exercise price of $4.00 per share.

The Company also granted the investors a 12-month right of participation in subsequent financings. The Company agreed not to create or authorize certain senior securities or undertake a reverse or forward stock split or reclassification, without the consent of the purchases of a majority of the shares, for 18 months. The Company also agreed not to enter into any variable rate transactions for 18 months. The investors waived their rights to participate in the April 2007 financing described in Note 3; however, such investors elected to participate in the June 2007 financing described in Note 11.

In addition, the Company entered into a registration rights agreement which required the Company to file a registration statement to register for resale the shares of common stock issued in this transaction and the shares of common stock issuable upon exercise of the warrants. The Company filed such registration statement on November 17, 2006 and it was declared effective on November 30, 2006.

If the registration statement ceases to be effective for more than an aggregate of 75 calendar days in any 12-month period, the Company has agreed to pay each holder an amount as liquidated damages equal to 1.5% of the aggregate investment amount then held by the holder of the shares purchased pursuant to the securities purchase agreement and on each monthly anniversary of the failure to effect such registration, provided however that such liquidated damages will not exceed 10% of the aggregate purchase price paid by all holders. The Company is required to use its commercially reasonable efforts to keep the registration statement effective until all registered securities covered by the registration statement have been sold or may be sold without volume restrictions pursuant to Rule 144(k). The Company has a history of maintaining the effectiveness of its resale registration statements and therefore an accrual for liquidated damages is not considered necessary.

In addition, if the registration statement permitting the resale of the shares issuable upon the exercise of the warrants is not then effective, or the prospectus forming a part thereof is not then available for the resale of the shares, then each warrant allows the holder to convert the warrants into common stock without any cash consideration in exchange for the surrender of the remaining shares of common stock otherwise purchasable upon the exercise of the warrant.

Redeemable Convertible Preferred Stock and Warrants

On April 1, 2005, under the terms of a Securities Purchase Agreement with accredited investors, the Company issued 1,803 shares of 5% Series A Redeemable Convertible Preferred Stock ("preferred stock") to such investors, five-year warrants for the purchase of 2,705,250 shares of common stock to such investors exercisable at $5.00 per share, and five-year warrants for the purchase in the aggregate of 163,596 shares of common stock to the placement agent and finder exercisable at $5.00 per share. Each share of preferred stock, which was non-voting, had a stated value of $10,000 per share and accrued cumulative dividends at a rate of 5% of the stated value annually, was convertible into the number of shares of common stock equal to the $10,000 stated value divided by $5.00, subject to anti-dilution adjustments. As a result, at April 30, 2005, the 1,803 preferred shares could be converted into 3,607,000 shares of common stock, subject to anti-dilution adjustments. The Company obtained gross cash proceeds of $13,603,000 at the closing (net of $30,000 in legal fees which were withheld by the lead investor). The Company also converted $4,402,000 of indebtedness into the above referenced securities. The Company incurred cash offering costs of $817,980, including agent commissions, a finder's fee and out-of-pocket expense reimbursements. The Company also paid legal and administrative expenses of $18,086 incurred by PKM in this transaction.

In certain circumstances, the Company had the option to require the holders of preferred stock to convert their shares into common stock. In the event of a fundamental transaction, as defined, the preferred shareholders had the right to require the Company to redeem the preferred shares at their stated value, including any accrued but unpaid dividends. In the event of certain defaults, the preferred shareholders had the right to require the Company to redeem the preferred shares at 110% of their stated value, including any accrued but unpaid dividends. As a result of these redemption provisions, the carrying

value of these preferred shares was considered to be redeemable and was reported as a "mezzanine" instrument on the Company's balance sheet. However, the carrying value of this preferred stock at April 30, 2005 was zero, net of a discount associated with the warrants issued to the shareholders, the placement agent and the finder, as described below.

The Company was required to register the common shares underlying the preferred stock and the common shares underlying the warrants. If the Company did not meet certain registration deadlines, the holders of preferred stock were entitled to liquidated damages, as defined. In the event of a fundamental transaction, as defined, the warrants issued to the preferred shareholders, the placement agent and the finder, all provided the warrant holders with the right to put the warrants to the Company for cash in an amount equal to the fair value of the warrants, as determined using the Black Scholes option pricing model. As a result of this put right, the warrants were reported at their fair value as a liability on the Company's balance sheet and changes in the fair value of the warrant resulted in charges or benefits to the Company's results of operations. The fair value of these warrants upon closing the preferred stock sale was $22,271,047. Because the fair value of these warrants at April 1, 2005 exceeded the proceeds received in the preferred stock and warrant issuances, the excess of the fair value of the warrants over the proceeds received (including the converted debt) was recognized as other expense of $4,266,047 upon closing. During the period between closing and April 30, 2005, the fair value of these warrants increased to $27,992,609. The Company reported the $5,721,562 increase in fair value of putable warrants in other expense in the statement of operations for the fiscal year ended April 30, 2005. The fair value of the warrants, after the changes in terms noted below, was $11,443,152 at the date the warrants were exercised or the put option removed. The Company reported the $16,549,457 decrease in fair value of putable warrants in other income in the statement of operations for the fiscal year ended April 30, 2006.

The Company measured the fair value of the putable warrants using the Black Scholes option pricing model. The Company believed this was the appropriate valuation model because the redemption terms of the warrants provided for the holders to put them to the Company at their fair value as measured using the Black Scholes model. The assumptions used to value the warrants when they were issued on April 1, 2005 and when they were valued at the end of the Company's 2005 fiscal year (April 30, 2005) and at date of exercise were as follows:

	April 1, 2005 and April 30, 2005	Date of Exercise
Expected life	5 years	0 years
Volatility	116%	132%
Risk free interest rate	4.24%	4.38%
Dividend yield rate	0%	0%

Holders of a majority of the outstanding shares of the preferred stock subsequently authorized the Company to proceed with a preferred stock acquisition plan. Pursuant to such plan, on December 21, 2005, the Company entered into preferred stock acquisition agreements with the holders of an aggregate of 1,499 shares of preferred stock. Under the agreements, the Company acquired the preferred stock of each such holder in consideration of the issuance 3,077 shares of common stock for each share of preferred stock being acquired. On January 6, 2006, under the same form of preferred stock acquisition agreements, the Company acquired an additional 271 shares of preferred stock, representing all of the remaining then-outstanding shares of the Company's preferred stock, for the same per share consideration. In the aggregate, the Company issued 5,447,814 shares of common stock in consideration of the acquisition of 1,770 shares of preferred stock. The Company originally sold 1,803 shares of preferred stock. The 33 shares of preferred stock not purchased in December 2005 or January 2006 were converted between June 2005 and October 2005 into shares of common stock at a conversion ratio of 2,000 shares of common stock for each share of preferred stock.

Also on December 21, 2005, the Company and holders of a majority of the outstanding shares of preferred stock and related common stock purchase warrants entered into an amendment to the securities purchase agreement as of April 1, 2005, to revise certain definitions. Following such amendment, on December 21, 2005, the Company and each of the holders who originally agreed to sell preferred stock to the Company entered into amendments to such holders' warrants issued under the securities purchase agreement. Pursuant to these amendments, the Company (1) reduced the exercise price on outstanding warrants for the purchase of an aggregate of 2,296,950 shares of common stock held by such persons from $5.00 per share to $3.25 per share, and (2) accelerated the expiration date of such warrants from April 1, 2010, to January 6, 2006. Concurrent with such warrant amendments, investors delivered warrant exercise notices to the Company. The Company authorized one of such warrants, namely the warrant for the purchase of 445,200 shares held by PKM to be exercised on a net exercise basis (using a market price of $6.60 per share).

On January 6, 2006, under the same form of amended warrant agreements, investors exercised warrants for the purchase of 423,050 shares of common stock. The Company authorized one of such warrants, namely the warrant for the purchase of 151,200 shares held by Peter L. Hauser, a beneficial owner of more than 5% of the Company's common stock, to be exercised on a net exercise basis (using a market price of $6.60 per share).

In the aggregate, the Company issued 2,411,567 shares of common stock in connection with the exercises by investors of investor warrants issued in the Company's April 2005 private placement. The Company also issued an additional 14,750 shares of common stock in connection with exercises of warrants originally issued to its agent and finder in its April 2005 private placement.

Also on January 6, 2006, pursuant to exercise notices dated January 5, 2006, the Company issued shares of common stock upon the exercise of certain other warrants. In particular, holders of warrants for the purchase of an aggregate of 107,850 shares of common stock, which were originally issued to the Company's placement agent in its April 2005 financing, were exercised. Of such number, warrants for the purchase of 1,500 shares were exercised for cash and warrants for the purchase of 106,350 shares were exercised on a net exercise basis, resulting in the issuance of 75,974 shares of common stock. Also effective January 6, 2006, the Company amended the outstanding finder warrant for the purchase of 40,996 shares of common stock to adjust the exercise price to $3.25 per share and eliminate the right to put the warrant to the Company for cash in an amount equal to the fair value of the warrants in the event of a fundamental transaction.

The net effect of the December 2005 and January 2006 transactions in the fiscal year ended April 30, 2006, including the changes in the terms of the preferred stock and warrants referred to above, was to increase cash by $6,435,140 (net of expenses of $471,435), decrease the warrant liability associated with the warrants containing a put feature by $18,188,082, increase common stock and additional paid-in capital by $31,458,271, increase non-cash dividends on preferred stock, because of the change in the number of common shares issued upon acquisition of the preferred stock, by $13,579,979 and increase other income by $6,744,930. The outstanding shares of common stock were increased by 7,951,605 shares.

Stock Option and Equity Incentive Plans

The Company has adopted the following stock option and equity incentive plans as of April 30, 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	13,844
2001 Equity Incentive Plan(1)	600,000	322,637
2005 Director Stock Option Plan	100,000	36,154
Total	830,000	372,635

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

Of the 895,454 stock options outstanding as of April 30, 2007, 513,714 are outside of the Company's authorized plans. As of April 30, 2007, the exercise prices of stock options outstanding ranged from $3.00 to $28.60 per share. 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.

The following table summarizes information about stock options for the fiscal years ended April 30, 2007 and 2006:

	Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value(1)
Outstanding, April 30, 2005	824,466	$10.10		
Granted	162,216	8.97		
Exercised	(375)	3.00		
Forfeited/Expired	(83,054)	12.28		
Outstanding, April 30, 2006	903,253	9.70		
Granted	190,729	6.72		
Forfeited/Expired	(198,528)	10.95		
Outstanding, April 30, 2007	895,454	8.78	6.03	$24,900
Vested and expected to vest, April 30, 2007	768,520	8.84	5.96	$21,394
Exercisable, April 30, 2007	403,800	9.46	5.38	$ —

(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 April 30, 2007 of $4.20 per share).

Net cash proceeds from the exercise of a stock option for 375 shares of common stock were $1,125 in the fiscal year ended April 30, 2006. The aggregate intrinsic value of the option exercised (the amount by which the market price of the stock on date of exercise exceeded the market price of the stock on the date of grant) was $2,063 during the fiscal year ended April 30, 2006. Due to the Company's tax position, no tax benefit was recognized as a result of the exercise of the option. There were no stock options exercised during the fiscal year ended April 30, 2007.

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

	Years ended April 30,	
	2007	2006
Weighted average grant-date fair value	$5.48	$8.59
Expected dividend rate(1)	0%	0%
Risk free interest rate(2)	4.6 to 5.1%	4.2%
Expected term(3)	5.0 to 6.3 years	4.0 to 10.0 years
Expected volatility(4)	104.2 to 111.2%	136.0%
Weighted-average volatility	110.0%	136.0%

(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**—For stock options granted in fiscal year 2007, the Company used yield rates on U.S. Treasury securities for a period approximating the expected term of the award. For stock options granted in fiscal year 2006, the rate was based on the U.S. Treasury interest rate for the term consistent with the maturity of the option.

(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 granted in fiscal year 2007 as allowed under SAB 107. Under this approach, the expected term was calculated by taking the average of the vesting term and the original contract term. In fiscal year 2006, the Company used the contractual life of the option as the expected term.

(4) **Expected volatility**—For stock options granted in fiscal year 2007, the Company used at least three years of historical monthly price observations to estimate volatility. For stock options granted in fiscal year 2006, the Company used weekly price observations beginning in August 2003, the date of acquisition of certain technology used in continuing operations.

Warrants

The Company had warrants outstanding to purchase 2,498,075 and 1,168,498 shares of the Company's common stock as of April 30, 2007 and 2006, respectively. The weighted average remaining contractual life of the warrants was 4.86 and 5.47 years as of April 30, 2007 and 2006, respectively. As of April 30, 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 2015.

	Warrants	Weighted Average Exercise Price
Outstanding, April 30, 2005	3,828,207	$ 7.10
Impact of anti-dilution features	251,561	
Exercised	(2,882,270)	
Expired	(29,000)	
Outstanding, April 30, 2006	1,168,498	11.24
Issued	1,383,571	
Impact of anti-dilution features	11,006	
Forfeited/Expired	(65,000)	
Outstanding, April 30, 2007	2,498,075	$ 5.80

As of April 30, 2007, warrants for the purchase of 1,419,567 shares of the Company's common stock contained a full-ratchet anti-dilution provision with a weighted average exercise price of $3.98 per share and warrants for the purchase of 705,458 shares of the Company's common stock contained a weighted-average anti-dilution provision with a weighted average exercise price of $3.66 per share.

8. Defined Contribution Plan

The Company sponsors a defined contribution 401(k) plan (the "Plan") which is available to substantially all full-time employees. The Company matches 100% of participants' contributions up to 4% of their cash compensation. The Company made contributions of $84,931 and $31,996 in fiscal years ended April 30, 2007 and 2006, respectively.

9. Contingencies and Uncertainty

Product Liability

In March 2005, the Company became aware that a patient who was utilizing the Company's heart valve had died. The Company has not received any claims related to this matter but believes that any such claim would be covered by its existing liability insurance. Based upon the expectation that insurance would cover the cost of any claims after the Company's payment of the deductible, the Company does not expect the ultimate resolution of this matter to have a material effect on the Company's business, financial condition, operating results or cash flows.

Trademark Opposition

The U.S. Patent and Trademark Office granted an extension of time to another company until August 1, 2007 to oppose the Company's SOLAR trademark. As of July 16, 2007, the Company has not received any notice that a formal opposition has been instituted.

Litigation

On March 10, 2006, J Giordano Securities LLC (d/b/a J Giordano Securities Group) ("JGSG") filed suit against the Company in U.S. District Court for the District of Connecticut. JGSG, which acted as a private placement agent for the Company in connection with sales of the Company's securities to private investors in April 2005, asserts claims for breach of contract, unjust enrichment and quantum meruit. JGSG contends it is owed certain fees as a result of "follow on transactions" executed by investors identified by JGSG, pursuant to the engagement agreement, as amended, between the Company and JGSG or, in the alternative, that it should be awarded such fees on an equitable basis. In particular, JGSG originally claimed that the exercise of outstanding warrants for the purchase of common stock by certain JGSG-identified investors and the Company's purchase of outstanding shares of 5% Series A Redeemable Convertible Preferred Stock from certain JGSG-identified investors in December 2005 and January 2006 entitled JGSG to damages no less than $1,431,769. JGSG originally sought (a) $279,191 in cash commissions, (b) warrants for the purchase of 85,905 shares at $3.25 per share, (c) lost profits of $751,669 on the argument that JGSG would have exercised the foregoing warrant and sold 85,905 shares on December 30, 2005, at a price of $12.00 per share, and (d) $400,909 in cash commissions the Company paid C.E. Unterberg, Towbin, LLC ("CEUT").

On September 22, 2006, the Company asserted a counterclaim against JGSG for fraud and breach of contract based upon JGSG's misrepresentations to induce the Company to enter the engagement agreement and JGSG's failure to perform its promised services thereunder. The Company seeks damages of (a) the $30,000 retainer and $543,000 cash paid to JGSG; (b) the value of the Company's warrants for 114,600 shares of common stock issued to JGSG; (c) the $445,328 fee and $27,016 expense reimbursement that the Company paid CEUT for its advisory services in December 2005 and January 2006; (d) the $3.7

million cash the Company did not obtain on investor warrant exercises due to the reduced warrant exercise price the Company was required to accept during those months; and (e) the value of the additional 1.9 million shares of common stock the Company was required to issue to effectuate the preferred stock purchase during those months. As a result, the Company counterclaims in excess of $5.0 million.

On November 20, 2006, JGSG filed an amended statement of claim. JGSG added new claims for additional compensation based upon the issuance of additional common stock to preferred stock holders in the alleged "follow-on transactions," the Company's alleged failure to timely file a resale registration statement for JGSG, and for additional compensation based upon the October 2006 private placement. JGSG currently seeks alleged damages of $3,346,565 as follows: (a) $279,191 in cash commissions; (b) warrants for the purchase of 85,905 shares at $3.25 per share; (c) lost profits of $751,669 on the argument that JGSG would have exercised the foregoing warrant and sold 85,905 shares on December 30, 2005, at a price of $12.00 per share; (d) $249,690 in cash pursuant to the alleged failure to timely file the resale registration statement for JGSG; (e) $6,726 in liquidated damages based upon the Company's alleged failure to timely file the resale registration statement for JGSG; (f) $556,214 in cash commissions that JGSG claims it was entitled to based upon preferred stock holders' receipt of additional common stock in the alleged "follow-on transactions"; (g) warrants for the purchase of 171,142 shares at $3.25 per share; (h) lost profits of $952,166 on the argument that JGSG would have exercised the foregoing warrant and sold 171,142 shares on January 3, 2006, at a price of $11.00 per share; (i) $400,909 in cash commissions the Company paid to CEUT; and (j) $150,000 based upon the fee the Company paid to CEUT for the October 2006 private placement. JGSG also seeks reimbursement for reasonable expenses, interest, costs and attorneys' fees. The U.S. District Court for the District of Connecticut has referred the matter to NASD arbitration. The Company believes that JGSG's lawsuit is without merit and intends to vigorously defend itself. Given the nature of arbitration, however, it is reasonably possible that the Company may be expected to pay certain amounts in connection with this claim. Since this is a breach of contract claim, it may not be covered by the Company's insurance.

As of April 30, 2007, the Company has not recorded an accrual for this matter since the amount to be paid, if any, cannot be reasonably estimated.

10. Discontinued Operations

On April 6, 2005, the Company's board 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 amounts of assets of discounted operations as of April 30, 2007 and 2006 consisted of a prepaid insurance policy which is amortized to the loss from discontinued operations over the policy period.

Valve business revenue and loss before income taxes included in discontinued operations are as follows:

	Years ended April 30,	
	2007	2006
Revenue(1)	$ —	$338,333
Loss before income taxes	$(58,282)	$(81,800)

(1) Revenue of $279,435 in the fiscal year ended April 30, 2006 was generated in Europe and the remaining revenue of $58,898 was generated in the United States.

11. Subsequent Events

On June 15, 2007, the Company entered into a Secured Note Purchase Agreement with Whitebox, a beneficial owner of more than 10% of the Company's common stock, Potomac Capital Management, LLC, a beneficial owner of more than 5% of the Company's common stock, and certain other accredited

investors for the issuance and sale of an aggregate of $4,500,000 of 11% Secured Promissory Notes ("$4.5M Notes") and warrants for the purchase of an aggregate of 674,998 shares of the Company's common stock ("2nd Closing Warrants"). The 2nd Closing Warrants have a term of five years and have an exercise price of $4.00 per share, subject to basic and, for 12 months, full-ratchet anti-dilution adjustments. In addition, the 2nd 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. The $4.5M Notes and any accrued but unpaid interest is due and payable three years following the date of the notes. During the first year, interest on the $4.5M Notes will accrue and be added to the principal balance of the notes. Within 30 days following the end of the first year, the Company is obligated to issue to the holders 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, the Company has an option each quarter to either (i) pay the accrued interest on the notes 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 notes and issue to the holders, 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 Company has the right to prepay the $4.5M 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 $4.5M Notes is a result of a change of control.

As a result of the second close, no additional notes remain available to be issued given that the Secured Note Purchase Agreement includes a restrictive covenant that the Company will not issue more than an aggregate of $12,500,000 of 11% secured notes. The notes are secured by a first priority security interest in the Company's assets. In addition, the Company is required to file a registration statement within 15 days following the due date of the Annual Report on Form 10-KSB for the fiscal year ended April 30, 2007 to enable the resale of the shares of common stock underlying the 2nd Closing Warrants as well as the 1st Closing Warrant issued on April 20, 2007. The Company is not required to register for resale the shares of common stock underlying the interest accrual warrants. The Company is required to use commercially reasonable efforts to cause such registration statement to be declared effective by the SEC and 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. If the registration statement is not declared effective on or prior to the required effective date, then the Company is required to pay to each holder as liquidated damages for each month an amount equal to 1% per month, pro rated for any portion thereof, of the aggregate value of the warrant shares measured at $4.00 per share. The holders may exercise the 2nd Closing Warrants using a cashless exercise only to the extent of the shares of the Company's common stock that the SEC does not permit the Company to include in the registration statement.

At closing of the $4.5M Notes on June 15, 2007, the Company received cash proceeds of $4,230,000 after payment of a 6% commission to the placement agent. The Company also agreed to pay certain additional expenses incurred by Whitebox and the placement agent associated with this transaction.

In addition, on June 15, 2007, the Company entered into an amendment to the purchase agreement with Whitebox dated April 20, 2007, and an amendment to the warrant agreement with Whitebox dated

April 20, 2007. Such amendments were designated to (1) clarify that the 1st Closing Warrant has a cashless right as to any shares the SEC does not permit the Company to include in the resale registration statement, (2) clarify that any reductions imposed by the SEC in the number of shares covered by the resale registration statement will be made on a pro-rata basis, (3) include a 9.99% limitation on exercise in the 1st Closing Warrant and the interest accrual warrants, and (4) clarify that the interest accrual warrants will have cashless exercise provisions.

On June 28, 2007, the Company entered into an amendment to the employment agreement of Eapen Chacko, 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 will terminate on September 15, 2007. Subject to the conditions set forth in the amendment, Mr. Chacko's compensation and benefits will continue to be paid under the employment agreement at their current rates through the date of termination. Except for the severance described below, Mr. Chacko is no longer eligible for bonus or other incentive compensation. Subject to the conditions set forth in the amendment, Mr. Chacko may receive severance payments aggregating up to $200,000 under his employment agreement. In addition to these severance payments, the Company has agreed to pay or reimburse Mr. Chacko for medical (COBRA) benefits as set forth in his employment agreement. The amendment further provides for a mutual release of claims and other terms and conditions customary for agreements of this nature.

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INDEX TO EXHIBITS

Exhibit Number	Description
3.1	Restated Articles of Incorporation of the Registrant, as Amended (incorporated by reference to Amendment No. 1 to our Registration Statement on Form SB-2, filed on June 6, 2006 (File No. 333-134315)).
3.2	Bylaws of the Registrant (incorporated by reference to our Registration Statement on Form SB-2, filed on August 31, 2001 (File No. 333-68884)).
4.1	Reference is made to Exhibits 3.1, 3.2, 10.40 and 10.43.
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)).
10.1	1992 Stock Option Plan (incorporated by reference to our Registration Statement on Form SB-2, filed on August 31, 2001 (File No. 333-68884)).
10.2	1993 Director Stock Option Plan (incorporated by reference to our Registration Statement on Form SB-2, filed on August 31, 2001 (File No. 333-68884)).
10.3	1997 Stock Option Plan (incorporated by reference to our Registration Statement on Form SB-2, filed on August 31, 2001 (File No. 333-68884)).
10.4	Amended and Restated 2001 Equity Incentive Plan, as amended.
10.5	Common Stock Purchase Warrant issued by the Registrant to PKM Properties, LLC, dated January 17, 2003 (incorporated by reference to our Quarterly Report on Form 10-QSB/A, filed on April 4, 2003 (File No. 000-33295)).
10.6	Amendment to Warrants by and between the Registrant and PKM Properties, LLC, dated July 1, 2003 (incorporated by reference to our Current Report on Form 8-K, filed on July 14, 2003 (File No. 000-33295)).
10.7	Warrant Agreement to purchase shares of common stock issued by the Registrant to PKM Properties, LLC, dated July 1, 2003 (incorporated by reference to our Current Report on Form 8-K, filed on July 14, 2003 (File No. 000-33295)).
10.8	Warrant Agreement to purchase shares of common stock issued by the Registrant to PKM Properties, LLC, dated August 20, 2003 (incorporated by reference to our Quarterly Report on Form 10-QSB filed on December 15, 2003 (File No. 000-33295)).
10.9	Warrant Agreement to purchase shares of common stock issued by the Registrant to PKM Properties, LLC, dated November 13, 2003 (incorporated by reference to our Quarterly Report on Form 10-QSB filed on March 22, 2004 (File No. 000-33295)).
10.10	Warrant Agreement to purchase shares of common stock issued by the Registrant to PKM Properties, LLC, dated February 3, 2004 (incorporated by reference to our Annual Report on Form 10-KSB filed on July 29, 2004 (File No. 000-33295)).
10.11	Building Lease Agreement between the Registrant and PKM Properties, LLC, dated April 4, 2003 (incorporated by reference to our Annual Report on Form 10-KSB filed on July 29, 2004 (File No. 000-33295)).
10.12	Technology Purchase Agreement between the Registrant and LightWave Ablation Systems, Inc., Gregory Brucker and Robert Svenson M.D., dated August 27, 2003 (incorporated by reference to our Annual Report on Form 10-KSB filed on July 29, 2004 (File No. 000-33295)).

Exhibit Number	Description
10.13	Technology Assignment Agreement between the Registrant, LightWave Ablation Systems, Inc., Robert H. Svenson, M.D. and Gregory Brucker, dated August 27, 2003 (incorporated by reference to our Annual Report on Form 10-KSB filed on July 29, 2004 (File No. 000-33295)).
10.14	Proprietary Information and Inventions Agreement between the Registrant, Robert H. Svenson, M.D. and Gregory Brucker, dated August 10, 2003 (incorporated by reference to our Annual Report on Form 10-KSB filed on July 29, 2004 (File No. 000-33295)).
10.15	Warrant Agreement to purchase shares of common stock issued by the Registrant to PKM Properties, LLC, dated November 17, 2004 (incorporated by reference to our Current Report on Form 8-K filed on November 23, 2004 (File No. 000-33295)).
10.16	Warrant Agreement to purchase shares of common stock issued by the Registrant to PKM Properties, LLC, dated February 16, 2005, effective March 3, 2005 (incorporated by reference or our Current Report on Form 8-K/A filed on March 9, 2005 (File No. 000-33295)).
10.17	Form of Non-Qualified Stock Option Agreement under the Amended and Restated 2001 Equity Incentive Plan issued to Executive Officers (incorporated by reference to our Annual Report on Form 10-KSB filed on July 20, 2006 (File No. 000-33295)).
10.18	Form of Non-Qualified Stock Option Agreement under the 1997 Stock Option Plan (incorporated by reference to our Quarterly Report on Form 10-QSB filed on March 17, 2005 (File No. 000-33295)).
10.19	Form of Non-Qualified Stock Option Agreement under the 1993 Director Stock Option Plan (incorporated by reference to our Quarterly Report on Form 10-QSB filed on March 17, 2005 (File No. 000-33295)).
10.20	Form of Stand-Alone Non-Qualified Stock Option Agreement issued to Non-Employee Directors (incorporated by reference to our Current Report on Form 8-K filed on March 25, 2005 (File No. 000-33295)).
10.21	2005 Director Stock Option Plan (incorporated by reference to our Definitive 14A (Proxy Statement), filed on August 25, 2005 (File No. 000-33295)).
10.22	Lease Termination Agreement entered into by and between PKM Properties, LLC and the Registrant, dated June 29, 2005 (incorporated by reference to our Quarterly Report on Form 10-QSB filed on September 14, 2005 (File No. 000-33295)).
10.23	Employment Agreement by and between Marc P. Flores and the Registrant, dated August 9, 2005 (incorporated by reference to our Current Report on Form 8-K/A filed on August 9, 2005 (File No. 000-33295)).
10.24	Form of Stand-Alone Non-Qualified Stock Option Agreement Issued to Executive Officers (incorporated by reference to our Current Report on Form 8-K/A filed on August 9, 2005 (File No. 000-33295)).
10.25	Form of Non-Employee Director Stock Option Agreement issuable under the 2005 Director Stock Option Plan (incorporated by reference to our Current Report on Form 8-K filed on September 23, 2005 (File No. 000-33295)).
10.26	Letter Agreement by and between the Registrant and Marc P. Flores, dated November 2, 2005 (incorporated by reference to our Current Report on Form 8-K filed on November 8, 2005 (File No. 000-33295)).
10.27	Form of Amendment to Stand-Alone Non-Qualified Stock Option Agreement (incorporated by reference to our Quarterly Report on Form 10-QSB filed on December 14, 2005 (File No. 000-33295)).

Exhibit Number	Description
10.28	Form of Preferred Stock Acquisition Agreement, dated December 21, 2005 (including form of Registration Rights Agreement) (incorporated by reference to our Current Report on Form 8-K filed on December 22, 2005 (File No. 000-33295)).
10.29	Form of Amendment No. 1 to Securities Purchase Agreement (originally dated March 31, 2005), dated December 21, 2005 (incorporated by reference to our Current Report on Form 8-K filed on December 22, 2005 (File No. 000-33295)).
10.30	Form of Amendment No. 1 to Warrant Agreement (originally issued April 1, 2005), dated December 21, 2005 (incorporated by reference to our Current Report on Form 8-K filed on December 22, 2005 (File No. 000-33295)).
10.31	Executive Employment Agreement by and between Adam L. Berman and the Registrant, dated August 17, 2005 (incorporated by reference to our Annual Report on Form 10-KSB filed on July 20, 2006 (File No. 000-33295)).
10.32	Executive Employment Agreement by and between Robert W. Clapp and the Registrant, dated August 17, 2005 (incorporated by reference to our Annual Report on Form 10-KSB filed on July 20, 2006 (File No. 000-33295)).
10.33	Executive Employment Agreement by and between Gary O: Tegan and the Registrant, dated April 19, 2006 (incorporated by reference to our Annual Report on Form 10-KSB filed on July 20, 2006 (File No. 000-33295)).
10.34	Restated Employment Agreement by and between Eapen Chacko and the Registrant, dated May 30, 2006 (incorporated by reference to our Current Report on Form 8-K filed on June 5, 2006 (File No. 000-33295)).
10.35	Form of Non-Qualified Stock Option Agreement issued to Directors under Amended and Restated 2001 Equity Incentive Plan (incorporated by reference to our Annual Report on Form 10-KSB filed on July 20, 2006 (File No. 000-33295)).
10.36	Securities Purchase Agreement between the Registrant and the Investors named as signatories thereto, dated October 13, 2006 (incorporated by reference to our Current Report on Form 8-K filed on October 16, 2006 (File No. 000-33295)).
10.37	Registration Rights Agreement between the Registrant and the Investors named as signatories thereto, dated October 13, 2006 (incorporated by reference to our Current Report on Form 8-K filed on October 16, 2006 (File No. 000-33295)).
10.38	Form of 2006 Private Placement Warrant (incorporated by reference to our Current Report on Form 8-K filed on October 16, 2006 (File No. 000-33295)).
10.39	Production Services Agreement between Minnetronix, Inc. and the Registrant, dated December 6, 2006 (incorporated by reference to our Quarterly Report on Form 10-QSB filed on March 15, 2007 (File No. 000-33295)).
10.40	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)).
10.41	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)).

Exhibit Number	Description
10.42	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)).
10.43	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)).
10.44	Amendment to Executive Employment Agreement by and between Eapen Chacko and MedicalCV, Inc., dated June 28, 2007 (incorporated by reference to our Current Report on Form 8-K filed on June 29, 2007 (File No. 000-33295)).
10.45	Non-Employee Director Compensation Policy, effective July 1, 2007 (incorporated by reference to our Current Report on Form 8-K filed on June 29, 2007 (File No. 000-33295)).
23	Consent of Independent Registered Public Accounting Firm.
24	Power of Attorney (included on signature page to Form 10-KSB).
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.

MANAGEMENT TEAM

Marc P. Flores
President and Chief Executive Officer

Eapen Chacko
Vice President, Finance and
Chief Financial Officer

Adam L. Berman
Vice President, Research and Development

Robert W. Clapp
Vice President, Operations

Gary O. Tegan
Vice President, Marketing

BOARD OF DIRECTORS

Susan L. Critzer
Chairperson of the Board,
MedicalCV, Inc.

Marc P. Flores
President and Chief Executive Officer,
MedicalCV, Inc.

David A. Chazanovitz
Executive Consultant

Richard J. Faleschini
President and Chief Executive Officer,
BioSphere Medical, Inc.

Larry G. Haimovitch
President,
Haimovitch Medical Technology Consultants

David B. Kaysen
President and Chief Executive Officer,
Uroplasty, Inc.

Paul K. Miller
Private Investor

J. Robert Paulson, Jr.
President, Chief Executive Officer and Director,
Restore Medical, Inc.

CORPORATE DATA AND SHAREHOLDER INFORMATION

Corporate Headquarters
MedicalCV, Inc.
9725 South Robert Trail
Inver Grove Heights, MN 55077
(651) 452-3000

Auditors
Lurie Besikof Lapidus & Company, LLP
2501 Wayzata Boulevard
Minneapolis, MN 55405

Legal Counsel
Briggs and Morgan, PA
2200 IDS Center
Minneapolis, MN 55402

Securities
MedicalCV's common stock is publicly traded on the OTC Bulletin Board under the ticker symbol "MCVI."

Transfer Agent and Registrar
Registrar and Transfer Company
10 Commerce Drive
Cranford, NJ 07016-3572

Annual Meeting
The annual meeting of shareholders will be held at the Radisson Hotel, 35 South Seventh Street, Minneapolis, Minnesota, on October 11, 2007, at 3:30 p.m. central time.

Financial Information
MedicalCV financial results and news are available online at www.medcvinc.com. Shareholders may obtain, without a charge, an additional copy of the Annual Report on Form 10 KSB as filed with the Securities and Exchange Commission for the year ended April 30, 2007, by writing:

Marc P. Flores
President and Chief Executive Officer
MedicalCV, Inc.
9725 South Robert Trail
Inver Grove Heights, MN 55077

medical CV™

This report contains certain forward-looking statements of expected future developments, as defined in the Private Securities Litigation Reform Act of 1995. The forward-looking statements in this report refer to expectations regarding our development and commercialization of surgical ablation systems. These forward-looking statements reflect our expectations and are based on currently available data; however, actual results are subject to future risks and uncertainties, which could materially affect actual performance. Risks and uncertainties that could affect such performance include those set forth under "Management's Discussion and Analysis or Plan of Operation – Cautionary Statement" in the attached Form 10 KSB.

MedicalCV, Inc.
9725 South Robert Trail,
Inver Grove Heights,
MN 55077-4424 USA
Main: 651.452.3000
Toll Free: 800.328.2060
Fax 651.452.4948
www.medcvinc.com

END