

Cardium Therapeutics, Inc.  
Form 10KSB  
March 15, 2007  
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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

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**FORM 10-KSB**

**ANNUAL REPORT**

**under Section 13 or 15(d)**

**of the Securities Exchange Act of 1934**

**FOR THE FISCAL YEAR ENDED DECEMBER 31, 2006**

**000-14136**

(Commission file number)

**CARDIUM THERAPEUTICS, INC.**

(Name of small business issuer in its charter)

**Delaware**  
(State of incorporation)

**27-0075787**  
(IRS Employer Identification No.)

**3611 Valley Centre Drive, Suite 525**

**San Diego, California 92130**  
(Address of principal executive offices)

**(858) 436-1000**  
(Issuer's telephone number)

**Securities registered under Section 12(b) of the Exchange Act:**

**None**

**Securities registered under Section 12(g) of the Exchange Act:**

**Common Stock, \$0.0001 par value per share**

Check whether Cardium Therapeutics, Inc. (Cardium) (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 Cardium was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.     Yes     No

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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 Cardium'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.  Yes  No

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

Cardium's revenues for its most recent fiscal year ended December 31, 2006 were \$756,137.

The aggregate market value of Cardium's common stock held by non-affiliates of Cardium as of March 9, 2007 was approximately \$103,264,612 (based on the closing sale price of \$3.10 reported by Nasdaq on March 9, 2007). For this purpose, all of Cardium's officers and directors and their affiliates were assumed to be affiliates of Cardium.

As of March 9, 2007, 40,914,425 shares of Cardium's common stock were outstanding.

### **DOCUMENTS INCORPORATED BY REFERENCE**

Part III (Items 9, 10, 11, 12 and 14) of this Form 10-KSB incorporates by reference portions of Cardium's definitive proxy statement for its Annual Meeting of Stockholders to be held June 6, 2007, to be filed on or before April 30, 2007.

Transitional Small Business Disclosure Format (Check one):  Yes  No

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**SPECIAL NOTE ABOUT FORWARD-LOOKING STATEMENTS**

Certain statements in this report, including information incorporated by reference, are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, Section 21E of the Securities Exchange Act of 1934, and the Private Securities Litigation Reform Act of 1995. Forward-looking statements reflect current views about future events and financial performance based on certain assumptions. They include opinions, forecasts, intentions, plans, goals, projections, guidance, expectations, beliefs or other statements that are not statements of historical fact. Words such as may, will, should, could, would, expects, plans, believes, anticipates, intends, estimates, appears, projects, or the negative or other variation of such words, and similar expressions may identify a statement as a forward-looking statement. Any statements that refer to projections of our future financial performance, our anticipated growth and trends in our business, our goals, strategies, focus and plans, and other characterizations of future events or circumstances, including statements expressing general optimism about future operating results and the development of our products, are forward-looking statements. Forward-looking statements in this report may include statements about:

future financial and operating results;

the timing, conduct and outcome of discussions with regulatory agencies, regulatory submissions and clinical trials;

the performance of Generx, Innercool Therapies Celsius Control System, Excellerate, and other product candidates and their potential to attract development partners and/or generate revenues;

our beliefs and opinions about the safety and efficacy of our products and product candidates and the results of our clinical studies and trials;

the development or commercialization of competitive products or medical procedures;

our development of new products and product candidates;

our growth, expansion and acquisition strategies, the success of such strategies, and the benefits we believe can be derived from such strategies;

the outcome of litigation matters;

our intellectual property rights and those of others, including actual or potential competitors;

the ability to enter into acceptable relationships with one or more contract manufacturers or other service providers on which we may depend and the ability of such contract manufacturers or other service providers to manufacture biologics or devices or to provide services of an acceptable quality on a cost-effective basis;

our personnel, consultants and collaborators;

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operations outside the United States;

current and future economic and political conditions;

overall industry and market performance;

the impact of accounting pronouncements;

management's goals and plans for future operations; and

other assumptions described in this report underlying or relating to any forward-looking statements.

The forward-looking statements in this report speak only as of the date of this report and caution should be taken not to place undue reliance on any such forward-looking statements. Forward-looking statements are subject to certain events, risks, and uncertainties that may be outside of our control. When considering forward-

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looking statements, you should carefully review the risks, uncertainties and other cautionary statements in this report as they identify certain important factors that could cause actual results to differ materially from those expressed in or implied by the forward-looking statements. These factors include, among others, the risks described under Item 6 and elsewhere in this report, as well as in other reports and documents we file with the United States Securities and Exchange Commission (SEC).

Unless the context requires otherwise, all references in this report to the Company, Cardium, we, our, and us refer to Cardium Therapeutics, and, as applicable, Innercool Therapies, Inc., Tissue Repair Company and our other wholly-owned subsidiaries.

## **PART I**

### **ITEM 1. DESCRIPTION OF BUSINESS**

#### **Overview**

We are a medical technology company primarily focused on the development and commercialization of novel biologic therapeutics and medical devices for cardiovascular and ischemic disease. Since we were initially funded in October 2005, we have made three strategic acquisitions and assembled a portfolio of innovative late-stage cardiovascular and regenerative medicine product candidates, together with medical devices having U.S. Food and Drug Administration ( FDA ) clearances that are marketed and sold through our direct sales force. We have established a pipeline of innovative products that are divided into three companies, Cardium Biologics, InnerCool Therapies, and Tissue Repair Company.

As our current products and product candidates become successfully advanced, we intend to continue to pursue opportunistic acquisitions designed to enhance long-term stockholder value. At the same time, as technologies and product candidates are advanced and businesses are built-up, further developed and mature, we may consider various corporate development transactions to enhance and monetize stockholder value such as corporate partnerings, spin-out transactions and equity distribution.

#### **Cardium Biologics Non-Surgical Approaches to Treating Heart Disease**

##### ***Schering Transaction***

In October 2005, we acquired a portfolio of interventional cardiology growth factor therapeutics from Schering AG Group, Germany (Schering). This portfolio included the following three product candidates: (1) Generx (alferminogene tadenovec), is a late-stage DNA-based growth factor therapeutic that is being developed as a one-time treatment to promote and stimulate the growth of collateral circulation in the hearts of patients with ischemic conditions such as recurrent angina; (2) Corgentin, a next-generation pre-clinical product candidate, is a DNA-based therapeutic based on myocardial produced insulin-like growth factor-I which could be developed for administration in an acute care setting by interventional cardiologists as a treatment for heart attack patients immediately following percutaneous coronary intervention. Corgentin is designed to enhance myocardial healing in and around the infarct zone when used as an adjunct to existing vascular-directed pharmacologic and interventional therapies; and (3) Genvascor, a pre-clinical, DNA-based therapeutic, based on endothelial nitric oxide synthase (eNOS) intended to induce the localized and sustained production of nitric oxide directed at mediating the effects of multiple growth factors to enhance neovascularization and increased blood flow for the treatment of patients with critical limb ischemia due to advanced peripheral arterial occlusive disease.

Under the terms of the transaction, we paid Schering a \$4 million fee, and will pay a \$10 million milestone payment upon the first commercial sale of each resulting product. We also are obligated to pay the following royalties to Schering: (i) 5% on net sales of an FGF-4 based product such as Generx, and/or (ii) 4% on net sales of other products developed based on technology transferred to us by Schering.

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### ***Market Data for Heart Disease and Angina***

According to the World Heart Federation, heart disease is the world's leading cause of death.

Over 13 million men and women in the United States suffer from heart disease.

Angina, a serious and debilitating heart condition usually associated with heart disease, is a growing health problem with over 6 million Americans suffering from chronic angina and an additional 400,000 new diagnoses each year.

The U.S. Census Bureau projects that the over 55 population, the group most at risk for angina, will increase by approximately 70% over the next 30 years.

An estimated 2 million patients in the U.S. suffer from recurrent angina, a chronic condition in patients with heart disease who are receiving maximal drug therapy and have already undergone one or more mechanical interventions.

### ***Current Treatments for Heart Disease and Angina***

Based on the current practice of medicine, angina due to heart disease is treated using one or more of three approaches: (1) chronic drug therapy; (2) percutaneous coronary intervention (angioplasty and stenting); and (3) coronary artery bypass graft surgery.

Currently available drugs to treat angina include beta-blockers, calcium channel blockers, long-acting nitrates, and metabolic modulators. These drugs increase cardiovascular blood flow by vasodilation and decrease the heart's demand for oxygen by reducing the metabolic load. This reduced cardiac workload is achieved by lowering heart rate, blood pressure and/or the strength of the heart's contraction. Hemodynamic and other side effects can limit or prevent the use of currently available drugs in patients whose blood pressure or cardiac function is already decreased. These limiting effects can be particularly pronounced when anti-anginal drugs are used in combination. In addition, co-morbidities such as reactive airway disease, congestive heart failure and diabetes also complicate treatment with existing anti-anginal drugs because these conditions may cause patients to be more vulnerable to known side effects of these therapies. Adverse effects include lower extremity edema associated with calcium channel blockers, impotence and depression associated with beta-blockers, and headaches associated with nitrates. Consequently, for some patients and physicians, presently available medical treatments may not relieve angina and have unacceptable side effects. Importantly, for many chronic angina patients, currently available therapies may provide variable or incomplete relief. Despite the widespread use of these therapies, up to three-fourths of symptomatic patients have recurrent or persistent anginal symptoms. Many patients, even those on multiple drugs, continue to experience angina attacks.

Of the major interventions performed for treating severe heart disease in the United States, namely percutaneous coronary intervention (PCI or angioplasty) and coronary artery bypass graft (CABG) surgeries, more than one million procedures are performed annually and more than two-thirds of these are performed on men. While angioplasty and stenting or CABG surgeries can be used to mechanically open or surgically bypass blockages of the large epicardial blood vessels that surround the myocardium, neither angioplasty nor CABG are believed to be capable of also addressing blockages or flow limitations affecting the mid-sized to smaller blood vessels that are located deeper within the heart muscle. These deeper blood vessels, which form the underlying coronary microcirculation, are directly responsible for conveying oxygenated blood into close proximity with the adjacent heart tissue. In addition, microcirculatory impedance or resistance to flow at the downstream level can contribute substantially to reducing overall blood flow through the myocardium which may be a contributory cause of ischemia in patients with heart disease. In that regard, many patients continue to experience angina even after surgical and other interventions have been performed to mechanically open or bypass accessible portions of the large upstream blood vessels that initially conduct blood flow into the heart.

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### ***Cardiovascular-Directed Growth Factors Generx***

Generx (alferminogene tadenovec) is the lead product candidate in a new class of cardiovascular biologics that is being developed to leverage the body's natural healing processes in response to repeated ischemic stress (insufficient blood flow and myocardial oxygen supply due to coronary heart disease). The natural biologic response to repeated transient ischemia is angiogenesis, the growth of new collateral blood vessels, which is orchestrated by a complex and not fully understood cascade involving many myocardial-derived growth factors. These newly formed vessels can effectively augment blood flow and oxygen delivery to parts of the patient's heart downstream from a blockage in a coronary artery. In many patients however, including those with recurrent angina, coronary collateral vessel formation is insufficient to meet the heart's needs during stress. Currently available anti-anginal drugs, which may provide symptomatic relief, are generally designed to alter the oxygen demand of the heart muscle or dilate vessels to temporarily relieve angina. Generx is an angiogenic therapeutic that is designed to promote the heart's natural response of collateral growth and to increase blood flow in the microcirculation.

### ***The Technology and Science of Generx***

Our intracoronary approach to deliver Generx to the heart relies on a cellular receptor-driven adenovector system to carry DNA into heart cells to stimulate the localized production of FGF-4 angiogenic proteins intended to promote the growth of microvascular circulation in ischemic regions of the heart to improve blood flow and correspondingly relieve anginal pain due to coronary artery disease. Our technique of intracoronary infusion of the adenovector encoding the FGF-4 gene results in direct delivery into the heart's extensive internal network of coronary circulation. This delivery method takes advantage first of the unique anatomy of the coronary circulation designed by nature for highly efficient oxygen and nutrient extraction, and second of the high concentration of cell surface receptors in the heart that are available for high-yield, first pass adenovector uptake. Our approach thus allows for the targeted and selective delivery of the biologic product throughout the heart. Growth factors like FGF-4 are normally secreted locally and are effective only in the local microenvironment, only a fraction of a millimeter from where they are secreted, in response to ischemia or stress. Delivery of Generx throughout the heart using our intra-coronary method therefore allows for the stimulation of collateral blood vessel growth throughout ischemic areas of the heart.

Targeted delivery of the adenovector containing the DNA encoding FGF-4 throughout the heart muscle is believed to efficiently and safely program the heart to produce and secrete angiogenic FGF-4 proteins, which stimulate the natural angiogenic healing process. Compared with other methods for DNA transfer, the adenovector encoding FGF-4 is taken up with high efficiency by cells in the heart. The transfected heart cells then transcribe the FGF-4 gene into messenger RNA, and translate that RNA into FGF-4 protein, with a signal sequence to cause its secretion. The adenovector DNA encoding growth FGF-4 expresses FGF-4 protein for a period of several weeks. This limited production is beneficial for therapeutic angiogenesis since new blood vessels, once initiated, tend to develop and remain in areas of need such as ischemic areas of the heart muscle. The adenovector encoding FGF-4 is not incorporated into the transfected cell's chromosomes; therefore it does not integrate or cause any disruption in the cell's own DNA-encoded genes. Generx, in combination with ischemic stress (angina), is therefore designed to promote collateral vessel growth precisely when and where it is needed. Generx is being developed as a one-time intracoronary administration to improve the underlying physiology in patients with recurrent angina.

We believe that our angiogenic therapeutic approach differs markedly from other potential angiogenic therapies currently at various stages of development, and that our approach offers several advantages over competitors. Our intracoronary delivery technique utilizes a standard diagnostic catheter, a commonly used tool of all interventional cardiologists. The intracoronary catheter approach also offers the potential for a broader distribution of therapeutic material throughout the heart. Additionally, our delivery method is designed to allow for the use of angiogenic therapy as an adjunctive treatment along with percutaneous intracoronary intervention (angioplasty and stent). Our approach to the treatment of heart disease uses a standard cardiac catheter to



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gradually infuse an angiogenic adenovector into the coronary circulation. The intracoronary route of delivery is readily accessible from outside of the heart. It also directly supplies the underlying heart muscle, as well as the coronary endothelium, to which adenovectors can bind and from which blood vessels grow in the process of angiogenesis. Cardiac infusion catheters and the intracoronary delivery route are also beneficial because they are routinely used by cardiologists for performing standard diagnostic procedures such as angiography.

Adenovectors are one of the most widely studied DNA delivery vehicles in human clinical trials. In the context of heart disease, angiogenic adenovectors are believed to be particularly useful as biologics in that they do not integrate into the human genome but can bind to and remain in the heart for a sufficient period of time to promote the development of new blood vessels. Adenovectors are also considered to be significantly more efficient than naked plasmid DNA for gene transfer. Naturally occurring biological receptors for adenovectors are believed to facilitate their binding to a broad area of heart muscle supplied by the infused coronary circulation.

### ***Generx Clinical Data Meta-Analysis and Phase III Protocol***

In June 2006, we reported our recently completed meta-analysis findings of the clinical studies conducted by the Schering AG Group, Germany. Based on this analysis, positive effects following intracoronary angiogenic therapy in both men and women with heart disease were observed. The data was presented at the American Society of Gene Therapy (ASGT) 9<sup>th</sup> Annual Meeting in Baltimore, Maryland. Timothy D. Henry, M.D., FACC, an interventional cardiologist and Professor of Medicine at the Minneapolis Heart Institute presented the data at a Special Cardiovascular Session entitled *Modulating Cardiac Phenotype: From Basic Mechanism to Clinical Trials*. As reported, several positive findings have emerged from a review of the AGENT clinical data, which relates to our lead product candidate, Generx (Ad5FGF-4).

The AGENT clinical studies involved 663 patients with angina who were enrolled at more than one hundred leading medical centers in the U.S., Canada, Europe and South America. All of the AGENT clinical studies were conducted in a randomized, placebo-controlled and double-blind manner so that neither patients nor their doctors knew whether a patient had received a one-time infusion of Generx or a placebo.

As reported at the ASGT meeting, there was a statistically significant reduction in anginal severity among the Generx patients compared to placebo at 6 months as measured by CCS Class (Canadian Cardiovascular Society), a widely used functional assessment for patients experiencing angina pectoris (chest pain associated with heart disease which can severely limit patients' daily activities). Longer-term patient follow-up showed that the observed improvements with respect to anginal class were maintained even a year after patients had received a one-time infusion of Generx.

It was further reported that among more exercise-limited patients in the AGENT-3 study (including both men and women over 55 who had previously been unable to exercise for more than 5 minutes on the exercise treadmill test (ETT)), there was a significant improvement in the primary endpoint of ETT duration in the group receiving Generx as compared to the placebo group. These improvements in exercise capacity were statistically significant with respect to the primary endpoint as measured 12 weeks following intracoronary administration; and a subsequent patient follow-up showed that the differences between the Generx and placebo groups were even greater after 6 months.

In addition it was observed that a protocol-specified subgroup analysis by gender in AGENT-3 revealed a significant increase in the primary endpoint of ETT duration among women with angina, an improvement that was also maintained 6 months after the one-time infusion of Generx. Additional data from the subgroup meta-analysis of all women participating in the AGENT-3 and AGENT-4 clinical studies showed that Generx had a statistically significant effect on improvements in overall exercise treadmill time, time to onset of angina during ETT, exercise time to 1 mm ST-segment depression on electrocardiogram, and CCS Class, each as compared to the placebo control group.

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As reported previously and as seen in other studies involving exercise treadmill testing, a substantial placebo response, which may be further accentuated by accompanying exercise or lifestyle changes, was observed among healthier patients. The occurrence of such a placebo response, particularly one affecting exercise capacity, tends to limit drug versus placebo distinctions among more exercise-competent subgroups when using the treadmill test. In line with those observations, the meta-analysis of the AGENT-3 and AGENT-4 studies showed that among a subgroup of patients, particularly men who were younger and more capable of exercise, there was a substantial placebo response. Among women, who have generally been under-represented in cardiovascular clinical trials despite a high incidence of heart disease, the observed placebo response was substantially less and the apparent treatment effect was therefore greater even when women with less severe forms of angina were included. Among both men and women, when patients were more exercise-limited to begin with, the placebo response was relatively limited. Importantly, the group of exercise-limited patients that had received Generx experienced a substantial improvement in exercise time on ETT whereas the placebo group did not, a difference that was both statistically significant and maintained over time.

As summarized by the AGENT clinical investigators in the abstract presented at the ASGT, the results of this meta-analysis suggest that Ad5FGF-4 may have a clinically meaningful and measurable effect on ETT and other measures of angina in women with recurrent angina, and potentially in both men and women that are older than 55 and have limited exercise capacity.

### ***Generx to Advance to Phase 3 Following Meetings with FDA***

In December 2006, we announced that Generx is to be advanced to a Phase 3 clinical trial in women as a potential treatment for myocardial ischemia (insufficient blood flow within the heart muscle), following an end-of-Phase 2 meeting with the U.S. Food and Drug Administration (FDA). As reported, Generx is the first and only DNA-based cardiovascular therapeutic to be advanced to Phase 3, and is believed to be the only current Phase 3 product candidate for the potential treatment of stable angina, a chronic medical condition affecting millions of patients in the U.S. and elsewhere.

The potential for Generx to bring about sustained improvements in blood flow and heart function, as compared to medications for symptom relief such as anti-anginals, also led the FDA to indicate that changes on an electrocardiogram (ECG) that are diagnostic of myocardial ischemia would constitute both an objective and acceptable primary efficacy endpoint for a proposed product indication of treating myocardial ischemia. Data from the completed AGENT-3 and AGENT-4 studies indicated that women receiving Generx showed a statistically significant improvement with respect to their ischemia as measured by time to ST segment changes on ECG (the primary efficacy endpoint now accepted by FDA for the Phase 3 study), as well as related improvements in overall exercise treadmill time (ETT), time to onset of angina during ETT, and improvements in angina class, each as compared to the placebo control group.

Following discussions with FDA, improvements in myocardial blood flow within the affected heart muscle will also be measured directly by SPECT perfusion imaging (single photon emission computed tomography) as a secondary efficacy endpoint. SPECT perfusion was the focus of the AGENT-2 mechanism of action study (Grines *et al.*, *JAM Coll Cardiol* 2003; 42:1339-47). Improvements in myocardial blood flow observed in the AGENT-2 study, which included both men and women, were similar in magnitude to improvements reported in the literature for patients who have undergone revascularization procedures (coronary artery bypass graft surgery or angioplasty).

This Phase 3 clinical study (AWARE), which is expected to be underway in the first half of 2007, will be a randomized, placebo-controlled, double blind trial in approximately 300 women at multiple medical centers in the U.S. An additional follow-up study of Generx in men with recurrent angina due to myocardial ischemia is expected to commence later. Our therapeutic approach to the treatment of cardiovascular heart disease has been the focus of the most widely-conducted clinical studies for Angiogenic Gene Therapy (AGENT-1 through

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AGENT-4), which to date have involved 663 patients at more than one hundred U.S., European and other medical centers.

**Additional Cardiovascular Product Candidates**

***Product Candidate for Heart Attack Corgentin [Ad5IGF-I]***

Corgentin, our lead pre-clinical product candidate, is a next-generation DNA-based therapeutic based on myocardial produced insulin-like growth factor-I (ad5IGF-I). We will seek to advance the current standard of care for heart attack patients through the development of Corgentin to enhance myocardial healing in and around the infarct zone when used as an adjunct to existing vascular-directed pharmacologic and interventional therapies. As currently envisioned, Corgentin would be developed as a potential treatment to be administered to heart attack patients immediately following reperfusion. The objective of this treatment approach is focused on enhancing myocardial repair and restoration of heart cells that have been injured as a result of the heart attack. Today's current standard of care is vascular-directed, focusing on restoring blood flow, while Corgentin would seek to broaden treatment to include a cardiomyocyte-directed therapy to prevent further damage to and to help repair cells that have been injured as a result of the heart attack. To further confirm the utility of the Corgentin approach and establish its commercialization potential, we are planning additional pre-clinical studies in the porcine acute myocardial infarction model, closely mimicking the clinical setting. If confirmatory, we may seek to initiate clinical studies on our own or with a corporate development partner.

***Product Candidate for Peripheral Vascular Disease Genvascor [Ad5eNOS]***

As part of our acquisition of cardiovascular growth factor therapeutic assets from the Schering AG Group, Germany, we also secured the rights to Genvascor, a pre-clinical, DNA-based, endothelial nitric oxide synthase (eNOS) therapeutic. This product candidate is being designed to induce production of nitric oxide directed at mediating the effects of multiple growth factors to enhance neovascularization and increased blood flow for the treatment of patients with critical limb ischemia due to advanced peripheral vascular disease. We may seek to develop additional pre-clinical information through sponsored studies and, if confirmatory, we may consider the further development of Genvascor either alone or through a corporate collaboration.

**Innercool Therapies Temperature Control for Preventing Ischemic Injury**

***Innercool Therapies Transaction***

In March 2006, we acquired the technologies and products of InnerCool Therapies, Inc., a San Diego-based medical technology company in the emerging field of therapeutic hypothermia, which is designed to rapidly and controllably cool the body in order to reduce cell death and damage following acute ischemic events such as cardiac arrest or stroke, and to potentially lessen or prevent associated injuries such as adverse neurological outcomes. InnerCool's Celsius Control System has now received regulatory clearance in the U.S., Europe and Australia. We plan to accelerate the commercialization of the Celsius Control System and broaden and expand its therapeutic hypothermia technology into other medical indications and applications. Since the acquisition by Cardium, InnerCool's sales force has been expanded, a new cGMP manufacturing facility has been secured to increase production capabilities, and a next-generation console for the Celsius Control System has been developed for a planned 2007 launch.

In connection with the transaction, we issued to the seller 2,500,000 shares of our common stock. In addition, as part of the acquisition, we agreed to (i) deliver to the seller \$5 million in cash or shares of our common stock, at our election, if net sales revenue from certain of InnerCool's products acquired in the acquisition equals or exceeds \$20 million in any one calendar year beginning with 2006 and ending December 31, 2011; (ii) assume certain liabilities of InnerCool Therapies in the aggregate amount of approximately \$580,000; and (iii) pay certain transaction costs associated with the acquisition and amounts that may be payable to former employees of the seller for accrued and unpaid vacation, in the aggregate, equal to

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approximately \$170,000, as well as certain audit fees and other expenses of approximately \$100,000. The acquisition was recorded based on our then-current common stock price of \$2.35 per share.

### **Market Data**

#### ***Cardiac Arrest:***

In the United States, an estimated 500,000 people experience cardiac arrest each year, of which approximately 150,000 survive and are treated with advanced care.

Outside the United States, it is estimated that approximately 900,000 people experience cardiac arrest each year, of which 200,000 survive and are treated with advanced care.

The American Heart Association recently revised its guidelines to recommend the use of therapeutic cooling as part of the critical care procedures for patients with an out-of-hospital cardiac arrest following ventricular fibrillation.

#### ***Heart Attack or Acute Myocardial Infarction (AMI):***

In the United States, an estimated 865,000 people experience a new or recurrent heart attack each year.

An estimated 325,000 people in the U.S., and approximately 375,000 people outside the United States, receive emergency angioplasty or anti-clotting treatment as first-line care following a heart attack.

#### ***Stroke:***

In the United States, approximately 700,000 people experience a stroke each year, and a comparable number of patients are affected outside the United States.

The American Stroke Association has identified the treatment of stroke victims with therapeutic hypothermia as a promising area of research.

#### ***Cardiothoracic Surgery:***

Approximately 500,000 patients in the U.S., and 300,000 patients outside the United States, undergo cardiothoracic surgery each year.

Major medical societies, such as the American Society of PeriAnesthesia Nurses, American Society of Anesthesiologists, American Association of Nurse Anesthetists and Association of Perioperative Registered Nurses have issued specific guidelines for temperature management during cardiothoracic surgeries.

#### ***Achieving or Maintaining Normal Body Temperature:***

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Potential applications for achieving or maintaining normal body temperature or normothermia include warming trauma patients whose temperatures have dropped below normal due to extensive blood loss and subsequent fluid replacement therapy, cooling heat stroke victims, re-warming patients with accidental hypothermia caused by exposure, and warming burn victims whose temperatures are below normal due to exposure in the intensive care unit.

### *Treatment of Acute Ischemic Conditions Using Temperature Modulation*

Numerous articles have been published in scientific and medical journals describing the usefulness of therapeutic cooling, which is designed to protect endangered cells, prevent tissue death and preserve organ function following events associated with severe deprivation such as stroke or cardiac arrest. Therapeutic

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hypothermia is believed to work by protecting critical tissues and organs such as the brain, heart and kidneys following acute ischemic or inflammatory events, by lowering metabolism and preserving cellular energy stores, thereby potentially stabilizing cellular structure and preventing or reducing injuries at the cellular, tissue and organ level. Two international clinical trials on hypothermia after cardiac arrest published in The New England Journal of Medicine demonstrated that induced hypothermia reduced mortality and improved long-term neurological function. Based on these results, the American Heart Association (AHA) and the International Liaison Committee on Resuscitation (ILCOR) issued new guidelines recommending that cardiac arrest victims be treated with cooling or induced hypothermia. The AHA guidelines now recommend the use of therapeutic cooling as part of the critical care procedures for patients with an out-of-hospital cardiac arrest following ventricular fibrillation.

### ***Traditional Approaches to Temperature Modulation External Cooling and Warming***

Clinicians currently manage patient temperature primarily by using cooling and warming blankets, ice packs and other external measures. These low technology approaches rely on cooling or warming the patient from outside the body and are often ineffective, cumbersome and labor intensive. Significant limitations include the following.

Surface cooling and warming products are often slow and ineffective at achieving and maintaining target body temperatures. Because the skin acts as an insulator opposing external changes in temperature, surface cooling and warming products are not able to reach therapeutic temperatures quickly and are incapable of precisely maintaining temperatures within desired ranges. This often results in wide temperature fluctuations and sustained periods during which patients are at dangerous temperature levels. Conventional products offer limited user control, thereby requiring medical staff to manually maintain and physically monitor patient temperatures on a continuous basis.

Because conventional temperature management products do not consistently maintain therapeutic target body temperatures, patients are at risk for brain and other organ damage. Surface cooling devices can also cause shivering, which increases metabolic demands, deprives organs of oxygen and causes increased intracranial pressure. Shivering is normally treated with sedatives or narcotics, potentially leading to additional complications. Extended use of these external devices can also create skin rashes, skin damage, patient hygiene problems and infection around wound sites.

External temperature management devices require extensive coverage of the patient's body, imposing obstacles for physicians and nurses to run tests, administer medication, draw blood, treat wounds and manage patient hygiene and provide other routine care. In addition, these devices are difficult to administer to patients with external trauma due to the need to keep wound sites accessible for treatment.

### ***Endovascular Temperature Control the InnerCool Celsius Control System***

Endovascular cooling, provided by InnerCool's Celsius Control System, is believed to offer more rapid and precise temperature control and ease of administration which are believed to be important requirements for the potential treatment of patients presenting with acute ischemic stroke in a hospital setting. In addition, it offers the ability to cool conscious patients without the need to anesthetize them, avoiding a potentially confounding factor.

InnerCool's Celsius Control System is currently being used in surgical and intensive care hospital units. The Celsius Control System is designed to rapidly and controllably cool the body in order to reduce cell death and damage following acute ischemic events such as cardiac arrest or stroke, and to potentially lessen or prevent associated injuries such as adverse neurological outcomes.

InnerCool's approach to therapeutic hypothermia is based on a single-use flexible metallic catheter and a fully integrated endovascular cooling system, which allows for rapid and controlled cooling and re-warming. InnerCool's Celsius Control System integrates a number of desirable features including a slim catheter profile, a highly efficient

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flexible metallic heat transfer element, a built-in temperature monitoring sensor, and a programmable console capable of rapidly and controllably inducing, maintaining and reversing therapeutic cooling.

InnerCool's Celsius Control System has received FDA 510(k) clearance for use in inducing, maintaining and reversing mild hypothermia in neurosurgical patients, both in surgery and in recovery or intensive care. The system has also received FDA clearance for use in cardiac patients in order to achieve or maintain normal body temperatures during surgery and in recovery/intensive care, and as an adjunctive treatment for fever control in patients with cerebral infarction and intracerebral hemorrhage. InnerCool has also received a CE mark allowing the Celsius Control System to be marketed in the European Community, and a TGA approval allowing the system to be marketed in Australia.

The Celsius Control System is now being used at a number of leading U.S. medical centers, including those at Stanford University, Cornell, Columbia, the University of Michigan, Harborview Medical Center, San Francisco General Hospital, the University of California Medical Centers at San Diego and San Francisco, and at medical centers in Australia and Sweden.

Studies for additional indications with InnerCool's Celsius Control System are expected to be conducted in collaboration with the National Institutes of Health, AHA and others. Potential future applications of the technology include endovascular cooling for cardiac arrest, acute ischemic stroke and myocardial infarction (heart attack), and acute traumatic injury.

### ***Therapeutic Hypothermia for Stroke the ICTuS-L Study***

The ICTuS-L study is sponsored by the National Institute of Neurological Disorders (NINDS), one of the National Institutes of Health (NIH). The NINDS sponsors and conducts research to learn about the healthy brain and to discover and disseminate information on ways to prevent, cure and treat neurological neuromuscular disorders and stroke. The NINDS leads the federal government's medical research effort to fight stroke. It funds research studies at universities, medical schools and hospitals across the country and conducts its own research on the grounds of the NIH campus in Bethesda, Maryland, as well as at the NIH Stroke Center at Suburban Hospital, Bethesda.

### ***Positive Effects of Hypothermia Following Heart Attack***

In October 2006, InnerCool announced preclinical data demonstrating a new and expanded benefit of early rapid cooling for the potential treatment of acute myocardial infarction (heart attack), as presented at the Transcatheter Cardiovascular Therapeutics (TCT) 2006 Annual Meeting in Washington, DC. Innercool also announced their plans for a new clinical study to further assess the safety and potential usefulness of early cooling for heart attack patients, which is expected to be co-sponsored in Sweden and to begin within the next several months.

The research reported at TCT was conducted by a team of interventional cardiologists led by Drs. Goran Olivecrona and David Erlinge at the Lund University Hospital, Sweden. In the recently completed study in a preclinical porcine heart attack model, researchers evaluated rapid cooling, induced by a combination of cold saline infusion along with InnerCool Therapies' endovascular Celsius Control System, prior to or coincident with percutaneous coronary intervention (PCI) procedures, which are used to restore blood flow in the heart. The data showed that cooling prior to PCI reduced overall infarct size (reflecting tissue damage) by an additional 40%. These findings strongly support the use of early rapid cooling in planned clinical studies, and suggest that InnerCool's endovascular cooling system may have the potential to enable interventional cardiologists to dramatically reduce tissue damage following a heart attack.

Based on these findings, InnerCool plans to sponsor a study on the use of early rapid cooling following heart attack, which is expected to be co-sponsored and conducted by the interventional cardiology center at Lund University Hospital, Sweden. The planned study will be a randomized human clinical trial designed to evaluate the potential use of InnerCool's hypothermia system in the treatment of heart attack patients. This study will

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randomize approximately twenty patients who present within six hours of their heart attack for PCI alone or PCI plus the new early rapid cooling protocol. The hypothermia arm will include iced saline infusion plus use of the InnerCool Celsius Control System catheter prior to reperfusion in patients undergoing PCI. The trial will employ cardiac magnetic resonance imaging (MRI) to provide an accurate assessment of the damage to the heart within days of the injury. The trial is expected to begin by early 2007 and to complete enrollment and treatment within about six months.

### ***Benefits of Inducing Hypothermia During Aneurysm Surgery***

In September 2006, Michael K. Morgan, M.D. reported on his direct experience and the benefits of the Celsius Control System in inducing hypothermia in cerebral vascular surgery patients at the Neurosurgical Society of Australasia (NSA) Annual Scientific Meeting in Cairns, Australia. It was reported by Dr. Morgan, a noted vascular neurosurgeon and Professor and Dean of the School of Advanced Medicine, Macquarie University, Sydney, that he had conducted retrospective review of over 600 aneurysms over a seven-year period, and found that patients with aneurysms greater than 12 millimeters are more likely to have over 20 minutes of temporary occlusion times. Temporary occlusion of arteries in the brain during aneurysm repair in such patients exposes the brain to ischemia (localized lack of oxygen), which can have negative consequences in terms of neurologic outcomes.

Dr. Morgan reported on the safety, efficient cooling and beneficial outcomes achieved utilizing InnerCool's Celsius Control System in an open-label cohort of 26 patients with 33 aneurysms, and reported that based on his experience and the clinical data reviewed, aneurysms greater than 12 millimeters frequently require prolonged temporary occlusion times. It was also reported that the ability of InnerCool's Celsius Control System to safely and effectively cool patients with aneurysms provides an important new tool for protecting the brain from ischemic injury, especially in patients such as these who are at higher risk for tissue damage due to the prolonged lack of blood flow, and that, in addition to achieving positive outcomes, there were no clinically significant catheter-related complications. The specifics of these findings are expected to be published in a neurosurgical journal.

### **Tissue Repair Company Healing Chronic Wounds**

#### ***Tissue Repair Company Transaction***

In August 2006, we obtained the rights to develop various technologies and products now part of the Tissue Repair Company (TRC), a San Diego-based biopharmaceutical company focused on the development of growth factor therapeutics for the potential treatment of chronic diabetic wounds. TRC's lead product candidate, Excellerate, is a DNA-activated collagen gel for topical treatment formulated with an adenovector delivery carrier encoding human platelet-derived growth factor-B (PDGF-B). Excellerate is initially being developed as a single administration for the treatment of non-healing diabetic foot ulcers.

The Excellerate topical gel is designed to stimulate angiogenesis and granulation tissue formation through the recruitment and proliferation of chemotactic cells such as monocytes and fibroblasts, which are necessary for the stimulation of a variety of wound healing processes. Other potential applications for TRC's Gene Activated Matrix (GAM) technology include therapeutic angiogenesis (cardiovascular ischemia, peripheral arterial disease) and orthopedic products, including hard tissue (bone) and soft tissue (ligament, tendon, and cartilage) repair. We have entered into a contract manufacturing agreement to produce Excellerate for clinical studies, and we plan to initiate a Phase 2b clinical study for Excellerate during the second half of 2007.

Under the terms of the TRC transaction, we paid \$1 million in cash and assumed approximately \$120,000 in liabilities. If TRC advances the Excellerate product candidate to a Phase 2 clinical study, TRC would be obligated to pay a product advancement milestone of \$1 million. TRC has the right to return the assets and product rights at anytime prior to the milestone payment and it would have no further obligation under the agreement. If TRC successfully commercializes Excellerate, TRC would pay royalties based on worldwide net sales of such product. The royalty rate would be 10% minus any applicable third party royalties (including a royalty to the University of Michigan under a license agreement assumed by Tissue Repair Company), and would also be subject to a development cost-recovery offset, which could be deducted at the rate of \$5 million per year from any applicable royalty obligations. The



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deduction for third party royalties would apply until worldwide net sales exceeded \$100 million per year. The cost-recovery offset would apply until TRC recovered 50% of its associated product development costs. TRC would also have a right to buy out the ongoing royalty obligation based on a one-time payment of 30% of net sales for the fifth calendar year or the first year in which sales exceeded \$250 million. If pre-specified milestones relating to the commercial development of Excellerate are not satisfied, and we do not elect to return the assets to the seller, then we would issue to the seller stock purchase warrants to purchase up to an aggregate of 2 million shares of our Common Stock (one 500,000 share allotment for each of up to four missed events) at an exercise price of \$4.00 per share. The seller could also require TRC to return certain product rights if TRC failed to meet the Excellerate development milestones by more than six months, excluding delays caused by defined product-related limitations.

### ***Chronic Wound Market***

An estimated 12.5 million patients worldwide suffer from chronic wounds with the industrialized countries making up 8 million, of which the U.S. totals approximately 3.7 million.

Over 800,000 patients in the U.S. develop diabetic foot ulcers annually.

Approximately 1.7 million patients suffer from pressure wounds, 1 million from diabetic foot ulcers and 1 million from venous status ulcers.

Diabetic ulcers cost the U.S. healthcare system approximately \$5 billion per year with treatment and subsequent lower limb amputations adding an addition \$1 billion per year.

Of the approximately 15 million diabetic patients approximately 15 to 20 percent of this patient population will go on to suffer at least one chronic foot ulcer and of those 6 percent will be hospitalized due to infection or other ulcer-related complications.

Diabetes is the leading cause of non-traumatic lower extremity amputations and approximately 14 to 24 percent of patients with diabetes who develop foot ulcers eventually have an amputation.

### ***Current Treatment Approaches for Chronic Wounds***

There are several treatment modalities currently used for severe chronic ulcers in diabetic patients, including topical dressings, off-loading, debridement and skin grafts. Regranex<sup>®</sup> Gel (becaplermin), which is marketed by Johnson & Johnson's Ethicon Wound Management Division, is considered to be the only FDA-approved prescription medicine to treat such wounds. Regranex<sup>®</sup> Gel is a recombinant human platelet-derived growth factor (rPDGF-BB) protein that is used as an adjunct with other current treatment modalities described above and is used to treat lower extremity diabetic neuropathic ulcers. Based on Regranex<sup>®</sup> Gel's instructions for use, an estimated 70 administrations and 70 wound cleanings and redressings would be required over a 10-week treatment period (once daily administration followed by a subsequent wound cleaning and redressing without gel).

### ***Gene Activated Matrix (GAM) Technology***

We believe that patient compliance can be a major factor preventing or limiting improved medical outcomes, particularly when repeated administrations are required at a wound site. Gene Activated Matrix technology is designed to provide a therapeutic level of protein synthesis at a particular site in the body and can be used in soft tissue such as skin, ligament, tendons and cartilage, as well as hard tissue such as bone. The technology is distinctive in that it is an immobilized form of local gene delivery that allows for control of gene uptake. GAM consists of a biocompatible matrix comprising a gene or DNA vector encoding a growth factor or other therapeutic protein.

For tissue repair, the application method involves placement of a GAM gel directly onto a wound site. TRC's studies have shown that proliferative cells in the body can migrate into the GAM, take up the immobilized vector and gene and then transiently express the

encoded therapeutic protein. Compared with topical applications of proteins, this *in situ* expression method significantly prolongs the availability of therapeutic protein to the cells

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involved in tissue repair. TRC's GAM technology may have potential utility in several clinical indications where protein therapeutics have had limited success, including treatment of dermal wounds (such as diabetic foot ulcers), therapeutic angiogenesis (pharmacologically inducing new blood vessel growth), and orthopedic products for repair of various tissues, including hard tissue (bone) and soft tissue (ligament, tendon, cartilage).

### ***Tissue Repair Product Candidate Excellarate***

Excellerate is being developed as a next-generation treatment to leverage the established medical utility of PDGF-B, and to simplify treatment by stimulating the body's own localized and sustained production of PDGF-B at the wound site over a 6- to 12-day period following a single dose administration. We believe that a one-time administration or in more severe cases several once-a-week administrations of the Excellerate topical gel, which is designed to mediate a sustained cellular-release of PDGF-B at the injury site, could substantially simplify the treatment regimen, thus potentially enhancing patient compliance and improving medical outcomes.

Excellerate is a DNA-activated collagen gel for topical treatment formulated with an adenovector delivery carrier encoding human platelet-derived growth factor-B (PDGF-B). Excellerate is initially being developed as a single administration for the treatment of non-healing, neuropathic diabetic foot ulcers. The Excellerate topical gel, a type of Gene Activated Matrix, is designed to stimulate angiogenesis and granulation tissue formation through the recruitment and proliferation of chemotactic cells such as monocytes and fibroblasts, which are necessary for the stimulation of a variety of wound healing processes.

Excellerate has been evaluated in an initial multi-center Phase 1/2 clinical trial that evaluated preliminary safety and included an assessment of healing in 15 patients having diabetic foot ulcers that did not heal using conventional techniques. Based on the data obtained, Excellerate appeared to be safe and well tolerated in patients with diabetic foot ulcers. In addition, in the 12 patients that completed the treatment protocol and follow-up, over 80% of the patients exhibited complete closure of previously non-healing wounds by 14 weeks. Single dose applications were administered in 70% of the patients and the remaining patients received a weekly dose application over a four-week period. Based on the prior pre-clinical and toxicology database, and results from the Phase 1/2 clinical study, we anticipate that Excellerate may be advanced into a randomized, double-blind, placebo-controlled, multi-center Phase 2b clinical study commencing in the second half of 2007.

## **Business Strategy**

### ***Strategic Goals***

Building upon our core products and product candidates, our strategic goal is to develop a portfolio of medical products at various stages of development and secure additional financial resources to commercialize these products in a timely and effective manner. The key elements of our strategy are to:

Initiate the Phase 3 AWARE clinical study for Generx in the first half of 2007;

initiate a Phase 2b clinical study for Excellerate in the second half of 2007;

accelerate the commercialization of Innercool's Celsius Control System and, at the same time, broaden and expand our therapeutic hypothermia technology into other medical indications and applications;

leverage our financial resources and focused corporate infrastructure through the use of contract manufacturers to produce clinical supplies and a contract research organization to manage or assist planned clinical studies;

advance the pre-clinical development of Corgentin and potentially seek partnering opportunities for the Corgentin and Genvascor product candidates;

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broaden and expand our product base and financial resources through other corporate development transactions in an attempt to enhance stockholder value, which could include acquiring other medical-related companies or product opportunities and/or securing additional capital; and

monetize the economic value of our product portfolio by establishing strategic collaborations at appropriate valuation inflection points.

**Table of Contents****Strategic Business Transactions**

We were initially formed as a Delaware corporation in December 2003 by Christopher J. Reinhard, our Chairman, President and Chief Executive Officer, and Tyler M. Dylan, Ph.D., our Chief Business Officer and General Counsel, to acquire certain technology and product rights from Schering AG Group, Germany relating to certain growth factor therapeutics that were initially developed by Collateral Therapeutics Inc. ( Collateral ) in partnership with Schering. Mr. Reinhard was a co-founder and executive officer of Collateral and Dr. Dylan was General Counsel of Collateral. In 2002, following a six year strategic research and development collaboration and successful Phase 2 clinical studies of Generx, Schering acquired Collateral for approximately \$160 million.

As part of a strategic refocusing in 2004, Schering divested its cardiovascular small molecule drugs and biologics under clinical development, including Generx. Mr. Reinhard and Dr. Dylan subsequently negotiated a transaction to acquire Schering's portfolio of cardiovascular growth factor therapeutics formally co-developed with Collateral. In October 2005, we completed a private equity financing concurrent with a merger transaction with a small public company raising \$30 million to support our acquisition of Schering's portfolio of growth factor therapeutics. Since we were initially funded, a little more than a year ago, we have made three acquisitions described above and which are summarized below.

As set forth in the summary schedule below, we estimate that approximately \$270 million has been invested by sellers and their affiliates in connection with the businesses, product candidates and technology in our three completed acquisitions. Based on the terms negotiated by our management team, these assets have been acquired at an average purchase price (as measured by upfront cash, equity, assumed debt and product success milestones) of approximately 10% on capital invested by corporate pharmaceutical partners, venture capital firms and other investors.

**Summary of Strategic Acquisitions**

Acquisition	Estimated Capital Invested (by sellers and affiliates)	Acquisition Price plus Milestones (excluding royalties)	Price/Invested Capital
<b>Cardium Biologics</b>			
Cardiovascular Growth Factor Therapeutics	~ \$200 Million	\$4 Million Cash plus potential \$10 Million Milestone upon product success (Product Sales)	7%
<b>InnerCool Therapies</b>			
Endovascular Temperature Control Systems	~ \$50 Million	~ \$6 Million Equity plus potential \$5 Million Milestone upon product success (Sales > \$20 Million); No royalties	22%
<b>Tissue Repair Company</b>			
DNA-Activated Matrices for Wounds	~ \$20 Million	~ \$1 Million Cash plus \$1 Million Clinical Milestone (Phase 2 advancement)	10%
<b>Total</b>	~ \$270 Million	~ \$27 Million	10%

Up-front payments: 4%  
~\$11 Million (incl. equity)

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We plan to continue to build our business through internal development and external acquisitions. As an emerging public company, we have initially focused on acquiring undervalued opportunities having unrealized value but which we believe have potential for significant future growth and development or partnering prospects when combined with the value-added skills and perspectives of our experienced management team.

As our current products and product candidates become successfully advanced, we intend to continue to pursue opportunistic acquisitions designed to enhance long-term stockholder value. At the same time, as technologies and product candidates are advanced and businesses are built-up, further developed and mature, we may consider various corporate development transactions to enhance and monetize stockholder value such as corporate partnerships, spin-out transactions and equity distribution.

## **Government Regulation**

New drugs and biologics, including gene therapy and other DNA-based products, are subject to regulation under the federal Food, Drug, and Cosmetic Act. In addition, biologics are also regulated under the Public Health Service Act. We believe that the pharmaceutical products we are attempting to develop will be regulated either as biological products or as new drugs. Both statutes and their corresponding regulations govern, among other things, the testing, manufacturing, distribution, safety, efficacy, labeling, storage, record keeping, advertising and other promotional practices involving biologics or new drugs. FDA approval or other clearances must be obtained before clinical testing, and before manufacturing and marketing, of biologics and drugs. Obtaining FDA approval has historically been a costly and time-consuming process. Different regulatory regimes are applicable in other major markets.

In addition, any gene therapy and other DNA-based products we develop will require regulatory approvals before human trials and additional regulatory approvals before marketing. New biologics are subject to extensive regulation by the FDA and the Center for Biological Evaluation and Research and comparable agencies in other countries. Currently, each human-study protocol is reviewed by the FDA and, in some instances, the National Institutes of Health, on a case-by-case basis. The FDA and the National Institutes of Health have published guidance documents with respect to the development and submission of gene therapy protocols.

To commercialize our product candidates, we must sponsor and file an investigational new drug (IND) application and be responsible for initiating and overseeing the human studies to demonstrate the safety and efficacy and, for a biologic product, the potency, which are necessary to obtain FDA approval of any such products. For our newly sponsored investigational new drug applications, we will be required to select qualified investigators (usually physicians within medical institutions) to supervise the administration of the products, and we will be required to ensure that the investigations are conducted and monitored in accordance with FDA regulations and the general investigational plan and protocols contained in the IND application.

The FDA receives reports on the progress of each phase of testing, and it may require the modification, suspension, or termination of trials if an unwarranted risk is presented to patients. If the FDA imposes a clinical hold, trials may not recommence without FDA authorization and then only under terms authorized by the FDA. The IND application process can thus result in substantial delay and expense. Human gene therapy products, a primary area in which we are seeking to develop products, are a new category of therapeutics. Because this is a relatively new and expanding area of novel therapeutic interventions, there can be no assurance as to the length of the trial period, the number of patients the FDA will require to be enrolled in the trials to establish the safety, efficacy and potency of human gene therapy products, or that the data generated in these studies will be acceptable to the FDA to support marketing approval.

After the completion of trials of a new drug or biologic product, FDA marketing approval must be obtained. If the product is regulated as a biologic, the Center for Biological Evaluation and Research will require the submission and approval, depending on the type of biologic, of either a biologic license application or a product license application and a license application before commercial marketing of the biologic. If the product is

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classified as a new drug, we must file a new drug application with the Center for Drug Evaluation and Research and receive approval before commercial marketing of the drug. The new drug application or biologic license applications must include results of product development, laboratory, animal and human studies, and manufacturing information. The testing and approval processes require substantial time and effort and there can be no assurance that the FDA will accept the new drug application or biologic license applications for filing and, even if filed, that any approval will be granted on a timely basis, if at all. In the past, new drug applications and biologic license applications submitted to the FDA have taken, on average, one to two years to receive approval after submission of all test data. If questions arise during the FDA review process, approval can take more than two years.

Notwithstanding the submission of relevant data, the FDA may ultimately decide that the new drug application or biologic license application does not satisfy its regulatory criteria for approval and may require additional studies. In addition, the FDA may condition marketing approval on the conduct of specific post-marketing studies to further evaluate safety and effectiveness. Rigorous and extensive FDA regulation of pharmaceutical products continues after approval, particularly with respect to compliance with current good manufacturing practices (GMPs), reporting of adverse effects, advertising, promotion and marketing. Discovery of previously unknown problems or failure to comply with the applicable regulatory requirements may result in restrictions on the marketing of a product or withdrawal of the product from the market as well as possible civil or criminal sanctions.

Ethical, social and legal concerns about gene therapy, genetic testing and genetic research could result in additional regulations restricting or prohibiting the processes we or our suppliers may use. Federal and state agencies, congressional committees and foreign governments have expressed interest in further regulating biotechnology. More restrictive regulations or claims that our products are unsafe or pose a hazard could prevent us from commercializing any such products.

The approval and/or clearance for marketing of medical devices, such as those being developed by our Innercool Therapies subsidiary, is also subject to extensive controls by health regulatory and other authorities. Although some devices can be cleared for marketing pursuant to a procedure referred to as an FDA 501(k) clearance, other devices and/or indications may require additional clinical studies and may be subject to even more extensive regulatory and other controls.

In addition to the foregoing, state and federal laws regarding environmental protection and hazardous substances, including the Occupational Safety and Health Act, the Resource Conservancy and Recovery Act and the Toxic Substances Control Act, affect our business. These and other laws govern our use, handling and disposal of various biological, chemical and radioactive substances used in, and wastes generated by, our operations. If our operations result in contamination of the environment or expose individuals to hazardous substances, we could be liable for damages and governmental fines. We believe that we are in material compliance with applicable environmental laws and that continued compliance therewith will not have a material adverse effect on our business. We cannot predict, however, how changes in these laws may affect our future operations.

We are also subject to a variety of other regulations in the United States, including those relating to bioterrorism, taxes, labor and employment, import and export, and intellectual property.

To the extent we have operations outside the United States, any such operations would be similarly regulated by various agencies and entities in the countries in which we operate. The regulations of these countries may conflict with those in the United States and may vary from country to country. In markets outside the United States, we may be required to obtain approvals, licenses or certifications from a country's ministry of health or comparable agency before we begin operations or the marketing of products in that country. Approvals or licenses may be conditioned or unavailable for certain products. These regulations may limit our ability to enter certain markets outside the United States.



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### **Competition**

The pharmaceutical, biotechnology and medical device industries are intensely competitive. Our products and any product candidates developed by us would compete with existing drugs, therapies and medical devices or procedures and with others under development. There are many pharmaceutical companies, biotechnology companies, medical device companies, public and private universities and research organizations actively engaged in research and development of products for the treatment of cardiovascular and related diseases, and/or products for temperature control therapy. Many of these organizations have financial, technical, research, clinical, manufacturing and marketing resources that are greater than ours. If a competing company develops or acquires rights to a more efficient, more effective, or safer competitive therapy for treatment of the same or similar diseases we have targeted, or one that offers significantly lower costs of treatment, our business, financial condition and results of operations could be materially adversely affected. In view of the relatively early stage of the industry, we believe that the most significant competitive factor in the field of gene therapy and biologics is the effectiveness and safety of a product candidate, as well as its relative safety, efficacy and cost as compared to other products, product candidates or approaches that may be useful for treating a particular disease condition.

We believe that our product development programs will be subject to significant competition from companies using alternative technologies, as well as to increasing competition from companies that develop and apply technologies similar to ours. Other companies may succeed in developing products earlier than we do, obtaining approvals for these products from the FDA more rapidly than we do or developing products that are safer, more effective or less expensive than those under development or proposed to be developed by us. We cannot assure you that research and development by others will not render our technology or product candidates obsolete or non-competitive or result in treatments superior to any therapy developed by us, or that any therapy developed by us will be preferred to any existing or newly developed technologies.

We are aware of products currently under development by competitors targeting the same or similar cardiovascular and vascular diseases as our Generx product development. These include biologic treatments using forms of genes and therapeutic proteins. For example, Coraetus Genetics, Inc., pursuant to a development agreement with Boston Scientific, has initiated a clinical study to evaluate a non-viral delivery of vascular endothelial growth factor-2 (VEGF-2) DNA in the form of naked plasmid for the direct injection into the heart muscle of patients with severe angina. They are conducting a Phase 2 clinical study with plans to enroll patients with Class III or IV angina that are not suitable for traditional revascularization procedures. Additionally, GenVec, Inc. announced the initiation of a Phase 2 clinical study of BioByPass Angiogen, which uses Vascular Endothelial Growth Factor-121 (VEGF-121) as a treatment for patients with severe coronary artery disease. This study will reportedly evaluate the effects of ETT time, heart function and quality of life in patients. Angiogen will apparently be administered to patients using direct injection into heart muscle using a guidance system (NOGA). GenVec previously announced a research collaboration with Cordis Corporation, a Johnson & Johnson company, to utilize the NOGA guidance delivery for its Angiogen product. We will also face competition from entities using other traditional methods, including new drugs and mechanical therapies, to treat cardiovascular and vascular disease.

In the areas of temperature control therapy, as practiced by our Innercool Therapies subsidiary, there are a number of actual or potential competitive approaches including alternative endovascular approaches based on inflatable balloon devices, such as the CoolGard thermal regulating system developed by Alsius Corporation, and the Reprive system being developed by Radiant Medical Inc. Alsius is currently marketing its CoolGard device, although it has recalled a number of units. Radiant is studying its Reprive device in COOL MI, an international study reportedly designed to demonstrate that lowering a patient's body temperature in connection with treatment of a heart attack can reduce subsequent damage to the heart and that earlier, faster and deeper cooling results in a clinically significant reduction in heart damage. Other approaches being developed for therapeutic cooling include the use of specialized cooling pads such as those employed in the Artic Sun system being developed by Medivance, and other devices such as cooling blankets and helmets.

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### **Manufacturing Strategy**

To leverage our experience and available financial resources, except as noted below with respect to Innercool Therapies, we do not plan to develop company-owned and operated manufacturing facilities. We plan to outsource all product manufacturing to a contract manufacturer of clinical drug products that operates at a manufacturing facility in compliance with current good manufacturing practices (GMPs). We may also seek to refine the current manufacturing process and final product formulation to achieve improvements in storage temperatures and the like.

Our management team already has experience with production of Adenovirus vector ( Adenovector ), DNA-based therapies, which is believed to be useful in understanding the unique requirements of our business. Schering, using their experience in the production of clinical grade, DNA-based drug products, has developed an adenovector manufacturing process employing the use of master viral banks and master cell banks. Technical transfer of process materials and methodologies from Schering to Cardium is expected to take place, combining the expertise of both companies.

The FDA has established guidelines and standards for the development and commercialization of molecular and gene-based drug products i.e.: *Guidance for Industry CMC for Human Gene Therapy INDs November 2004, Sterile Drug Products Produced by Aseptic Processing September 2004, Human Somatic Cell Therapy and Gene Therapy March 1998, PTC in the Characterization of Cell Lines Used to Produce Biologicals July 1993*. These industry guidelines, among others, provide essential oversight with regard to process methodologies, product formulations and quality control standards to ensure the safety, efficacy and quality of these drug products.

In January 2006, we entered into a Production Service Agreement with Molecular Medicine BioServices, Inc., pursuant to which Molecular Medicine will manufacture our lead product candidate, Generx, for late-stage clinical development. The agreement is due to expire upon completion of the project, which is anticipated to be completed in 2007. We may terminate the agreement at any time in our discretion by giving Molecular Medicine 60 days notice of termination. Molecular Medicine may terminate the agreement at any time in its discretion by giving us 180 days written notice. Either party may terminate the agreement upon a material breach by the other party, subject to certain cure periods.

The disposable portions of Innercool s products, the catheter and administrative set, are currently assembled at our facilities in San Diego. The console s cooling sub-assembly is currently purchased from a single vendor, although we believe there are several vendors that could supply this component. Innercool currently integrates this sub-assembly with additional software, printed circuit boards, electrical isolation, and a user interface in order to create the final product. We are currently considering improvements to the Innercool console that are designed to enhance functionality and/or manufacturability.

Innercool s manufacturing operations are required to comply with certain quality assurance regulations. Specifically, Innercool must adhere to the FDA quality system regulations, comply with ISO 13485 requirements and maintain our CE mark. We believe Innercool s operations meet such requirements.

### **Marketing and Sales**

Our product candidates must undergo testing and development in clinical trials and pre-clinical studies. Other than Innercool s Celsius Control System, we do not currently have any products approved for marketing nor any present capacity to market and sell products that could be commercially developed based on our technology. If we should obtain any such marketing approvals, we expect that we would elect to engage in marketing or sales through or in collaboration with a commercialization partner, although we are not currently involved with such a partner.

Innercool is currently selling its products into neurosurgical and neurocritical care markets. Innercool s sales force currently consists of three individuals. Representative accounts include medical centers at Stanford

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University, Cornell, Columbia, the University of Michigan, Seattle's Harborview and Swedish medical centers, San Francisco General Hospital, and the University of California medical centers at San Diego and San Francisco.

Innercool has received a CE mark allowing its products to be marketed in the European Community, and approval from the Therapeutic Goods Administration (TGA) that allows it to market its products in Australia. Innercool has used a distributorship arrangement to commence sales efforts in Australia and has opened accounts at some of the country's premier hospitals. Innercool has not commenced sales efforts in Europe and does not currently expect to do so other than through a distributorship arrangement.

## **Intellectual Property**

As part of our acquisition of Schering's portfolio of cardiovascular growth factor therapeutic assets, pursuant to a Technology Transfer Agreement entered into between Cardium and Schering, we acquired from Schering a portfolio of methods and compositions directed at the treatment of cardiovascular diseases. We also have exclusive licenses to methods for introducing DNA to the heart and for improving heart muscle function, as well as to various biologics. Our resulting portfolio of cardiovascular product candidates and associated intellectual property include methods and genes applicable to the treatment of heart diseases, the promotion of healing, and the treatment of peripheral vascular disease. In March 2006, we also acquired a portfolio of intellectual property related to devices and methods for endovascular temperature control therapy, in connection with our acquisition of the assets of Innercool Therapies. In August 2006, we acquired the rights to various technologies and products now part of TRC including Excellerate. There can be no assurance that our intellectual property assets will be sufficient to protect our commercialization opportunities, nor that our planned commercialization activities will not infringe any intellectual property rights held or developed by third parties.

We have entered into certain collaborative and licensing arrangements in connection with each of our acquisitions. We expect to continue evaluations of the safety, efficacy and possible commercialization of our therapeutic genes and methods of gene therapy, as well as our other product candidates and technologies. On the basis of such evaluations, we may alter our current research and development programs, clinical studies, partnering or other development or commercialization activities. Accordingly, we may elect to cancel, from time to time, one or more of the following arrangements with third parties, subject to any applicable accrued liabilities and, in certain cases, termination fees. Alternatively, the other parties to such arrangements may, in certain circumstances, be entitled to terminate the arrangements. Further, the amounts payable under certain of our arrangements may depend on the number of products or indications for which any particular technology licensed under such arrangement is used by us. Thus, any statement of potential fees payable by us under each agreement is subject to a high degree of potential variation from the amounts indicated.

Our business strategy includes the establishment of research collaborations to support and supplement our discovery, pre-clinical and clinical research and development phases of the product commercialization cycle, as well as the implementation of long-term strategic partnerships with major pharmaceutical and biotechnology companies and interventional cardiology and medical device companies, to support clinical trials and product commercialization activities, including product manufacturing, marketing and distribution.

## ***Schering Agreement***

We entered into an agreement with Schering covering the transfer or license of certain assets and technology relating to (i) methods of gene therapy for the treatment of cardiovascular disease (including methods for the delivery of genes to the heart or vasculature and the use of angiogenic and/or non-angiogenic genes for the potential treatment of diseases of the heart or vasculature); (ii) therapeutic genes that include fibroblast growth factors (including FGF-4); insulin-like growth factors (including IGF-I); and potentially other related biologics (including mutant eNOS), and (3) other technology and know-how, including manufacturing and formulation technology, as well as data relating to the clinical development of Generx and corresponding FDA regulatory

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matters. Under this agreement, we paid Schering a \$4 million up front fee in October 2005 and would be required to pay a \$10 million milestone payment upon the first commercial sale of each resulting product. We also may be obligated to pay the following royalties to Schering: (i) 5% on net sales of an FGF-4 based product such as Generx; or (ii) 4% on net sales of other products developed based on technology transferred to us by Schering. We are also obligated to reimburse Schering for patent expenses, including the expenses of any interference or other proceedings, accrued on or after April 1, 2005 in connection with the transferred technologies.

### ***University of California License Agreement***

In September 1995, Collateral Therapeutics entered into an agreement with the Regents of the University of California (Regents) pursuant to which the Regents granted to Collateral Therapeutics an exclusive license (with the right to sublicense) in the United States, and in foreign countries where the respective patent rights exist, to certain technology relating to angiogenic gene therapy, based on scientific discovery research conducted at a laboratory at the University of California. In June 1997, Collateral Therapeutics and the Regents entered into an exclusive license agreement (with the right to sublicense) in the United States, and in foreign countries where the respective patent rights exist, for certain technology relating to angiogenic gene therapy for congestive heart failure.

As part of the Schering transaction, we acquired Collateral Therapeutics' rights and corresponding obligations under the September 1995 agreement, which in connection with the Schering transaction was amended, among other things, to include the technology previously covered by the June 1997 agreement. The agreement as amended may be canceled by us at any time on 60 days' notice, following which we would continue to be responsible only for obligations and liabilities accrued before termination. Under the agreement, we are obligated to pay (1) an annual royalty fee of 2% based on net sales of products incorporating the technology licensed under the agreement, and (2) a minimum annual royalty fee (which may be offset against the net sales-based royalty fee) of \$150,000 for 2009, \$200,000 for 2010, \$250,000 for 2011, \$300,000 for 2012, \$400,000 for 2013 and \$500,000 for 2014 and thereafter. We also are obligated to reimburse the Regents for ongoing patent expenses incurred in connection with the licensed technologies. We are obligated to make a milestone payment to the Regents of \$200,000 payable on the earlier to occur of the beginning of Phase II/III clinical trials in the United States or December 31, 2008.

The above agreement provides us with exclusive rights (subject to any license rights of the U.S. government) to develop and commercialize technology covered by patent applications that have been filed in the United States and in foreign countries. Under the terms of the agreement, we are required to diligently proceed with the development and commercialization of the products covered by the licensed patents. To demonstrate our diligence, we are required to attain certain developmental milestones on or before deadlines set forth in the licenses. If and after we receive marketing approval of the products, we will be required to market the products in the United States within six months thereafter. If there is a material breach of any of these agreements, which material breach remains uncured for 60 days, the breached agreement could be terminated by the Regents.

### ***New York University Research and License Agreement***

In March 1997, Collateral Therapeutics entered into an agreement with New York University (NYU) pursuant to which NYU granted to Collateral Therapeutics an exclusive worldwide license (with the right to sublicense) to certain technology covering development, manufacture, use and sale of gene therapy products based on FGF-4 for the treatment of coronary artery disease, peripheral vascular disease and congestive heart failure. This agreement was also assumed by us in connection with the Schering transaction and amended in certain respects pursuant to an agreement with NYU. Upon assumption, this agreement as amended provides us with exclusive rights in such fields to develop and commercialize technology covered by the issued patent and patent applications that have been filed in the United States and in foreign countries. Pursuant to the agreement, we are obligated to pay NYU license fees through the completion of the first full year of sales of licensed product equal to \$50,000 per year. We also are obligated to reimburse NYU for ongoing patent expenses incurred in

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connection with the licensed technologies. Should licensed products under the agreement reach the stage of filing of a product license application (PLA) and PLA approval or foreign equivalent thereof, we could be obligated to pay up to an aggregate amount of approximately \$1.8 million for each product in milestone payments. In addition, beginning in the year in which we complete one full year of sales of licensed products and continuing thereafter until the agreement terminates or expires, we could also be obligated to pay annual royalty fees equal to the greater of \$500,000 or 3% on net sales of products incorporating the technology licensed under the agreement. Under the license agreement, we are required to pursue development and commercialization of the licensed products. If there is a material breach of this agreement that remains uncured for 60 days (or 30 days in the case of unpaid amounts due), the breached agreement could be terminated by NYU.

***Yale University License Agreement***

In September 2000, Schering entered into an agreement with Yale University pursuant to which Yale University granted to Schering an exclusive worldwide license (with the right to sublicense) to certain technology covering development, manufacture, use and sale of gene therapy products based on a phosphomimetic mutant of human endothelial nitric oxide synthase (eNOS) for the treatment of all cardiovascular diseases. As part of the Schering transaction, we assumed this agreement with Yale University and as such will be obligated to pay an annual license fee of \$15,000, and make certain milestone payments during the development of the licensed products as follows: (i) \$150,000 upon filing the first investigational new drug application for the first licensed product in any one of the United States, Japan or a country in the European Union; (ii) \$825,000 upon treating the first patient in the second clinical trial in any one of the United States, Japan or a country in the European Union; (iii) \$900,000 upon filing first Biologics License Application (BLA) or new drug application in the United States; (iv) \$1.5 million upon the first commercial sale of a licensed product; and (v) \$3 million upon the first \$10 million in net sales. If we achieve sales of licensed products, we would be required to pay a minimum royalty of \$50,000 per year that is credited to an annual sales royalty equal to 4% of the first \$250 million of net sales, 5% of the next \$250 million of net sales and 6% of net sales in excess of \$500 million. Under the terms of this agreement, we are obligated to reimburse Yale University for ongoing patent expenses incurred in connection with the licensed technologies. If there is a material breach of this agreement that remains uncured for 60 days, the breached agreement could be terminated by Yale.

***SurModics License Agreement***

In connection with the Innercool Therapies acquisition, a Master License Agreement with SurModics, Inc., dated December 1, 1999, was assigned to and assumed by Innercool Therapies, Inc. (SurModics License). Pursuant to the terms of the SurModics License, SurModics grants to Innercool a worldwide license with respect to medical products that are surface-treated with photo-reactive polyvinylpyrrolidone, photo-reactive heparin, diphoto diquat (photo-reactive crosslinking compound) or any combination of such photo-reactive reagents, under SurModics trade secrets and other technical information relating to the surface-treatment of medical devices and which SurModics has the right to transmit to others, as well as certain patent applications and patents. In connection with the SurModics License, Innercool is obligated to pay SurModics a royalty equal to the greater of: (A) earned royalties calculated as a percentage of net sales of licensed products sold in each calendar year (the percentage used in each calculation during each calendar year is based on the cumulative net sales of licensed product in the calendar year as follows: 2.5% on the first \$15 million of net sales; 2.25% on the next \$15 million; and 2.0% on net sales over \$30 million); or (B) quarterly minimum royalties that increase on an annual basis. Quarterly minimum royalties for 2006 were \$20,000. In addition, Innercool grants to SurModics a noncancelable, nonexclusive, sublicensable, worldwide license to make, have made, use and sell products and processes covered by any Innercool latent reactive chemical patent, to the extent such manufacture, sale or use is covered by any claim of any patent that SurModics has the right to license or may have licensed to others, and SurModics agrees to pay to Innercool 5% of the royalties SurModics receives from its sublicensees based on sales of products that but for such sublicenses would infringe Innercool's patents. Each license granted under the SurModics License extends until expiration of the last to expire patent rights covering the applicable product or for 15 years following the first bona fide commercial sale of such product, whichever is longer. The SurModics

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License may be terminated by Innercool upon 90 days advance notice and by SurModics in the event of any material breach or default by Innercool upon 30 days advance notice.

**University of Michigan License Agreement**

In August 2006, as part of the Tissue Repair Company transaction, we acquired Tissue Repair Company's rights to an exclusive license with the University of Michigan for certain technology upon which Excellerate is based. We are obligated to reimburse the University of Michigan for patent expenses under the licensed technology and we may be obligated to pay royalties of 2 - 3.5 % on net sales of products based on the technology such as the product candidate Excellerate.

**Employees**

As of December 31, 2006, we employed 56 full-time employees. We expect to hire approximately nine additional employees during the next 12 months. Our employees are not represented by a collective bargaining agreement and we have not experienced any work stoppages as a result of labor disputes. We believe our relationship with our employees is good. We also rely on various consultants and advisors to provide services to us.

**ITEM 2. DESCRIPTION OF PROPERTY**

The table below summarizes our facilities. We believe our facilities are adequate to meet our operating requirements for the foreseeable future.

Location	Nature of Use	Square Feet	How Held	Monthly Base Rent	Lease Expiration Date
3611 Valley Centre Drive	Corporate headquarters	5,727	Leased	\$ 22,335 <sup>1</sup>	October 31, 2007 <sup>2</sup>
Suite 525	(Principal executive offices)				
San Diego, CA USA					
6740 Top Gun St.	Office, Research Development, Production and Related Uses <sup>3</sup>	29,706	Leased	\$ 36,538 <sup>4</sup>	January 19, 2013 <sup>5</sup>
San Diego, CA USA					
3931 Sorrento Valley Blvd.	Office, Research and Development and Related Uses <sup>6</sup>	24,000 <sup>6</sup>	Leased	\$ 25,200 <sup>7</sup>	October 31, 2007
San Diego, CA USA					

<sup>1</sup> In addition to base rent, we are also required to pay our proportionate share of operating and tax expenses for the office park in which our space is located.

<sup>2</sup> The lease contains two options, the first for an additional term of one year and the second for an additional term of two years. The second option is subject to a third party right of first refusal.

<sup>3</sup> This facility is used by Innercool Therapies, Inc., and Tissue Repair Company, each a wholly-owned subsidiary.

<sup>4</sup> Monthly base rent through May 20, 2007. Monthly base rent increases to approximately \$40,103 beginning May 21, 2007 and to \$41,506 beginning January 20, 2008. In addition to base rent, we are also required to pay our proportionate share of operating and tax expenses for the office park in which our space is located.

<sup>5</sup> The lease contains an option allowing us to cancel the last two years of the lease for a one time fee of \$75,000 if we provide written notice of our intent to exercise the option no later than July 20, 2010 and an option to cancel only the last year of the lease for a one time fee of \$50,000 if we give written notice no later than September 20, 2011. The lease contains an option to renew the lease for an additional six year period, provided the lessor does not elect to sell the property at the end of the current lease term.

<sup>6</sup> This facility is used by Innercool Therapies, Inc., approximately 17,700 square feet are subleased to a third party.

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<sup>7</sup> In addition to base rent, we are also obligated to pay the landlord's operating expenses associated with the facility. We receive approximately \$20,500 in offsetting monthly rent from the third party sublease plus the sublease's pro rate share of the landlord's operating expenses.

We do not intend to invest directly in real estate, real estate mortgages or interests in real estate. We have an investment policy that governs the investment of any surplus funds we may have from time to time. Under this policy, we may invest in certain securities that meet the credit and maturity requirements set forth in the policy, including securities of federal agencies, corporate obligations, municipal notes and money market funds. An investment in such securities may result in an indirect investment in real estate, real estate mortgages or interests in real estate.

**ITEM 3. LEGAL PROCEEDINGS**

From time to time, we may become involved in various investigations, claims and legal proceedings that arise in the ordinary course of our business. These matters may relate to intellectual property, employment, tax, regulation, contract or other matters. The resolution of these matters as they arise will be subject to various uncertainties and, even if such claims are without merit, could result in the expenditure of significant financial and managerial resources.

As of March 9, 2007, neither Cardium nor its subsidiaries were a party to any material pending legal proceeding nor was any of their property the subject of any material pending legal proceeding. We anticipate, however, that we will be regularly engaged in various patent prosecution and related matters in connection with the technology we develop and/or license. To the extent we are not successful in defending against any adverse claims concerning our technology, we could be compelled to seek licenses from one or more third parties who could be direct or indirect competitors and who might not make licenses available on terms that we find commercially reasonable or at all. In addition, any such proceedings, even if decided in our favor, involve lengthy processes, are subject to appeals, and typically result in substantial costs and diversion of resources.

**ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS**

We did not submit any matters to our stockholders for a vote during the fourth quarter ended December 31, 2006.

**Table of Contents****PART II****ITEM 5. MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS****Market Information**

Our common stock trades on both the Over-the-Counter Bulletin Board (OTCBB) and the Pink Sheets under the symbol CDTP. Below are the high and low closing prices of our common stock as reported by Nasdaq for each quarter of the years ended December 31, 2006 and 2005:

	2006		2005	
	High	Low	High	Low
First Quarter	\$ 3.94	\$ 1.95	\$ 0.15	\$ 0.15
Second Quarter	\$ 3.23	\$ 2.00	\$ 0.46	\$ 0.15
Third Quarter	\$ 2.60	\$ 1.85	\$ 1.51	\$ 0.46
Fourth Quarter	\$ 3.40	\$ 2.75	\$ 2.35	\$ 0.61

The information above reflects inter-dealer prices, without retail mark-up, mark down or commissions, may not represent actual transactions and should not be deemed to reflect an established public trading market for our common stock. The high and low closing prices shown for the first three quarters of 2005, and the low closing price shown for the fourth quarter of 2005, are for shares of common stock of Aries Ventures before the reverse merger with Cardium in October 2005. Until February 27, 2006, our common stock traded solely on the Pink Sheets.

**Holdings**

As of March 9, 2007, there were approximately 405 stockholders of record of our common stock.

**Dividends**

During the last two years ended December 31, 2006 and 2005, no dividends were declared or paid on our common stock. We do not anticipate paying a dividend in the foreseeable future, as we are in our development stage and expect to sustain losses over the next several years. To the extent we do have earnings, we intend to retain any earnings to help provide funds for the development of our product candidates, the implementation of our business strategy and for our future growth.

In preparation for and in connection with the reverse merger between Aries Ventures and Cardium in October 2005, a one-time, non-dividend, cash distribution of approximately \$0.43 per share was made to the stockholders of record holding, immediately prior to the close of the reverse merger, approximately two million shares of common stock of Aries Ventures.

**Recent Sales of Unregistered Securities**

Other than as previously reported on our Current Reports on Form 8-K filed with the SEC on October 26, 2005, March 14, 2006, and August 15, 2006, during the years ended December 31, 2006, 2005, and 2004, we did not sell any unregistered securities.

**Repurchases**

During the fourth quarter of 2006, we did not repurchase any shares of our common stock, nor were any repurchases made on our behalf.

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

*The following is a discussion of our intended plan of operation during the next 12 months. You should carefully review the risks described under this Item 6 and elsewhere in this report, which identify certain*



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*important factors that could cause our plan of operation, future financial condition and results of operations to vary.*

### **Plan of Operation**

We are a medical technology company primarily focused on the development and commercialization of novel biologic therapeutics and medical devices for cardiovascular and ischemic disease. Building upon our core products and product candidates, our strategic goal is to develop a portfolio of medical products at various stages of development and secure additional financial resources to commercialize these products in a timely and effective manner. The key elements of our strategy are to:

initiate the Phase 3 AWARE clinical study for Generx in the first half of 2007;

initiate a Phase 2b clinical study for Excellerate in the second half of 2007;

accelerate the development and sales of Innercool's Celsius Control System and, at the same time, broaden and expand our therapeutic hypothermia technology into other medical indications and applications;

leverage our financial resources and focused corporate infrastructure through the use of contract manufacturers to produce clinical supplies and a contract research organization to manage or assist planned clinical studies;

advance the pre-clinical development of Corgentin and potentially seek partnering opportunities for the Corgentin and Genvascor product candidates;

broaden and expand our product base and financial resources through other corporate development transactions in an attempt to enhance stockholder value, which could include acquiring other companies or product opportunities and/or securing additional capital; and

monetize the economic value of our product portfolio by establishing strategic collaborations at appropriate valuation inflection points. We plan to continue to build our business through internal development and external acquisitions. As an emerging public company, we have initially focused on acquiring undervalued opportunities having unrealized value but which we believe have potential for significant future growth and development or partnering prospects when combined with the value-added skills and perspectives of our experienced management team.

To the extent our current products and product candidates become successfully advanced, we intend to continue to pursue opportunistic acquisitions designed to enhance long-term stockholder value. At the same time, as technologies and product candidates are advanced and businesses are built-up, further developed and mature, we may consider various corporate development transactions to enhance and monetize stockholder value such as corporate partnerings, spin-out transactions and equity distribution.

We recognize that the practical realities of developing therapeutic products in the current regulatory environment require sizable financial investment. In view of this, we plan to pursue clinical development strategies intended to facilitate collaborations and partnerships for joint development of our products at appropriate valuation inflection points during their clinical development cycle.

On March 9, 2007, we completed a private placement of our common stock that resulted in net proceeds to the Company of approximately \$20 million. As a result, we believe we have sufficient funds available to fund our operations for the next 12 months. However, the amount and timing of future cash requirements will depend on the amount and rate at which resources are applied to clinical trials and other activities associated with researching, developing, manufacturing, commercializing and supporting our products and product candidates, which could lead to our cash resources being consumed sooner than currently expected. If we do not have



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sufficient cash to maintain operations and fund planned programs, we would either need to reduce or slow our expenditures, which could cause a delay in the implementation or accomplishment of one or more components of our operation described above, or seek additional financing through the sale of equity securities, debt financing, and/or strategic licensing agreements. Any additional capital may not be available on terms that are desirable or acceptable to us, or at all.

More detailed information about our products, product candidates and our intended efforts to develop our products is included under Item 1 of this report.

## **Risk Factors**

You should carefully consider the risks described below, as well as the other information in this report and in other reports and documents we file with the SEC when evaluating our business and future prospects. If any of the following risks actually occur, our business, financial condition, results of operations and future growth prospects could be seriously harmed. In that event, the market price of our common stock could decline and you could lose all or a portion of the value of your investment in our stock.

### ***Risks Related to Our Business and Industry***

***We are a development stage company formed in December 2003. We have incurred losses since inception and expect to incur significant net losses in the foreseeable future and may never become profitable.***

We have sustained operating losses to date and will likely continue to sustain losses as we seek to accelerate our product development efforts. We expect these losses to be substantial in the early years of our operations because our product development and other costs, including significant amounts we expect to spend on development activities and clinical trials for Generx , Excellerate and other product candidates, cannot be offset by our limited revenues during our development stage. As of December 31, 2006, our accumulated deficit was approximately \$24 million, and our cash equivalents were approximately \$5.9 million. To date, we have generated limited revenues, consisting of revenues from sales of our InnerCool Celsius Control System and associated disposables, as well as interest income. A large portion of our expenses are fixed, including expenses related to facilities, equipment, contractual commitments and personnel. As a result, we expect our net losses from operations to continue for at least the next five years. Our ability to generate additional revenues and potential to become profitable will depend largely on our ability, alone or with potential collaborators, to efficiently and successfully complete the development of our product candidates, successfully complete pre-clinical and clinical tests, obtain necessary regulatory approvals, and manufacture and market our products. There can be no assurance that any such events will occur or that we will ever become profitable. Even if we do achieve profitability, we cannot predict the level of such profitability. If we sustain losses over an extended period of time, we may be unable to continue our business.

***Our business prospects are difficult to evaluate because we are a new company and are developing complex and novel medical products.***

Since we have a short operating history and our product candidates rely on complex technologies, it may be difficult for you to assess our growth, partnering and earnings potential. It is likely we will face many of the difficulties that new technology companies often face. These include, among others: limited financial resources; developing, testing and marketing new products for which a market is not yet established and may never become established; challenges related to the development, approval and acceptance of a new technology or product; delays in reaching our goals; lack of substantial revenues and cash flow; high product development costs; competition from larger, more established companies; and difficulty recruiting qualified employees for management and other positions. We will likely face these and other difficulties in the future, some of which may be beyond our control. If we are unable to successfully address these difficulties as they arise, our future growth

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and earnings will be negatively affected. We cannot be certain that our business strategies will be successful or that we will successfully address any problems that may arise.

***We will need substantial additional capital to develop our products and for our future operations. If we are unable to obtain such funds when needed, we may have to delay, scale back or terminate our product development or our business.***

Conducting the costly and time consuming research, pre-clinical and clinical testing necessary to obtain regulatory approvals and bring our products to market will require a commitment of substantial funds in excess of our current capital. Our future capital requirements will depend on many factors, including, among others: the progress of our current and new product development programs; the progress, scope and results of our pre-clinical and clinical testing; the time and cost involved in obtaining regulatory approvals; the cost of manufacturing our products and product candidates; the cost of prosecuting, enforcing and defending against patent claims and other intellectual property rights; competing technological and market developments; and our ability and costs to establish and maintain collaborative and other arrangements with third parties to assist in potentially bringing our products to market.

We will need to raise substantial additional capital to fund our future operations. We cannot be certain that additional financing will be available on acceptable terms, or at all. In recent years, it has been difficult for companies to raise capital due to a variety of factors, which may or may not continue. To the extent we raise additional capital through the sale of equity securities or we issue securities in connection with another transaction, the ownership position of existing stockholders could be substantially diluted. If additional funds are raised through the issuance of preferred stock or debt securities, these securities are likely to have rights, preferences and privileges senior to our common stock and may involve significant fees, interest expense, restrictive covenants and the granting of security interests in our assets. Fluctuating interest rates could also increase the costs of any debt financing we may obtain. Raising capital through a licensing or other transaction involving our intellectual property could require us to relinquish valuable intellectual property rights and thereby sacrifice long term value for short-term liquidity.

Our failure to successfully address ongoing liquidity requirements would have a substantially negative impact on our business. If we are unable to obtain additional capital on acceptable terms when needed, we may need to take actions that adversely affect our business, our stock price and our ability to achieve cash flow in the future, including possibly surrendering our rights to some technologies or product opportunities, delaying our clinical trials or curtailing or ceasing operations.

***We acquired the assets and business of InnerCool Therapies, Inc. in March 2006 and rights to develop the Excellerate product candidate of the Tissue Repair Company in August 2006 and may, in the future, pursue acquisitions of other companies or product rights that, if not successful, could adversely affect our business, financial condition and results of operations.***

On March 8, 2006, we completed our acquisition of the assets and business of InnerCool Therapies, Inc., a medical technology company focused on the emerging field of therapeutic hypothermia. On August 11, 2006, we acquired rights to develop the Excellerate product candidate of the Tissue Repair Company, a medical technology company focused on the development of growth factor therapeutics for the potential treatment of chronic wounds such as dermal ulcers. These businesses are subject to all of the operational risks that can affect medical technology companies, including those related to regulatory approvals and clinical studies, acceptance of technology, competing technology, intellectual property rights, profitability, suppliers and third party collaborators, adverse publicity, litigation, and retention of key personnel.

In the future, we may pursue additional acquisitions of other companies, technologies or products. Acquisitions of businesses or product rights, including the InnerCool and Tissue Repair Company transactions, involve numerous risks, including:

our limited experience in evaluating businesses and product opportunities and completing acquisitions;

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the use of our existing cash reserves or the need to obtain additional financing to pay for all or a portion of the purchase price of such acquisitions and to support the ongoing operations of the businesses acquired;

the potential need to issue convertible debt, equity securities, stock options and stock purchase warrants to complete an acquisition, which would dilute our stockholders and could adversely affect the market price of our common stock;

potential difficulties related to integrating the technology, products, personnel and operations of the acquired company;

requirements of significant capital infusions in circumstances under which the acquired business, its products and/or technologies may not generate sufficient revenue or any revenue to offset acquisition costs or ongoing expenses;

entering markets in which we have no or limited prior direct experience and where competitors have stronger market or intellectual property positions;

disruptions to our ongoing business, diversion of resources, increases in our expenses and distraction of management's attention from the normal daily operations of our business;

the potential to negatively impact our results of operations because an acquisition may require us to incur large one-time charges to earnings, amortize or write down amounts related to goodwill and other intangible assets, or incur or assume substantial debt or liabilities, or cause adverse tax consequences, substantial depreciation or deferred compensation charges;

an uncertain sales and earnings stream, or greater than expected liabilities and expenses, associated with the acquired company, product or product rights;

failure to operate effectively and efficiently as a combined organization utilizing common information and communication systems, operating procedures, financial controls and human resources practices;

potential loss of key employees of the acquired company; and

disruptions to our relationships with existing collaborators who could be competitive with the acquired business.

There can be no assurance that our InnerCool or Tissue Repair transactions, or other transactions that we may pursue, will ultimately prove successful. If we pursue an acquisition but are not successful in completing it, or if we complete an acquisition but are not successful in integrating the acquired company's employees, products or operations successfully, our business, financial condition or results of operations could be harmed.

***We are an early stage company and, other than InnerCool's Celsius Control System and related disposables that are approved for limited uses, we have no other products available for sale or use. Our product candidates require additional research, development, testing, and regulatory approvals before marketing. We may be unable to develop, obtain regulatory approval or market any of our product candidates or expand the market of our existing products and technology. If our product candidates are delayed or fail, our business and stockholder value will be negatively impacted, and we may have to curtail or cease our operations.***

We are in the early stage of product development and, other than InnerCool's Celsius Control System and related disposables that are approved only for limited uses, we currently do not sell any other products and may not have any other products commercially available for several years, if at all. Our product candidates, and the potential expansion of our therapeutic hypothermia products into other medical indications and

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applications, require additional research and development, clinical testing and regulatory clearances before we can market them. To our knowledge, the U.S. Food and Drug Administration, or FDA, has not yet approved any gene

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therapy or similar product and there can be no assurance that it will. There are many reasons that our products and product candidates may fail or not advance beyond clinical testing, including the possibility that:

our products and product candidates may be ineffective, unsafe or associated with unacceptable side effects;

our product candidates may fail to receive necessary regulatory approvals or otherwise fail to meet applicable regulatory standards;

our product candidates may be too expensive to develop, manufacture or market;

physicians, patients, third-party payers or the medical community in general may not accept or use our products;

our potential collaborators may withdraw support for or otherwise impair the development and commercialization of our products or product candidates;

other parties may hold or acquire proprietary rights that could prevent us or our potential collaborators from developing or marketing our products or product candidates; or

others may develop equivalent, superior or less expensive products.

In addition, our product candidates are subject to the risks of failure inherent in the development of biologics, gene therapy and other products based on innovative technologies. As a result, we are not able to predict whether our research, development and testing activities will result in any commercially viable products or applications. If our product candidates are delayed or we fail to successfully develop and commercialize our product candidates, or if we are unable to expand the market of our existing products or related technology, our business, financial condition or results of operations will be negatively affected, and we may have to curtail or cease our operations.

### ***We may experience delays in our clinical trials that could adversely affect our business, financial results and commercial prospects.***

To obtain regulatory approvals for new products or to expand indications for existing ones, we must, among other things, initiate and successfully complete multiple clinical trials demonstrating to the satisfaction of the FDA that our product candidates are sufficiently safe and effective for a particular indication. We are in ongoing discussions with the FDA regarding clinical trials of our Generx product candidate, and expect to soon be in discussions regarding our recently acquired Excellerate product candidate. While we expect both product candidates to be in clinical trials in 2007, there is no assurance that they will be since the timing of clinical trials is dependent on, among other things, FDA reviews, clinical site approvals, successful manufacturing of clinical materials, sufficient funding and other factors outside of our control. Furthermore, there can be no assurance that our clinical trials will in fact demonstrate to the satisfaction of the FDA and others that our products are sufficiently safe or effective.

The FDA or we may also restrict or suspend our clinical trials at any time if either believes that we are exposing the subjects participating in the trials to unacceptable health risks. We expect to continue to rely on third party clinical investigators at medical institutions and healthcare facilities to conduct and monitor our clinical trials, and, as a result, we may face additional delaying factors outside of our control. Product development costs to us and our potential collaborators will increase, and our business may be negatively impacted, if we experience delays in testing or approvals or if we need to perform more or larger clinical trials than planned, for reasons such as the following:

the FDA or other health regulatory authorities, or institutional review boards, do not approve a clinical study protocol or place a clinical study on hold;

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suitable patients do not enroll in a clinical study in sufficient numbers or at the expected rate, or data is adversely affected by trial conduct or patient drop out;



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patients experience serious adverse events, including adverse side effects of our drug candidate or device;

patients die during a clinical study for a variety of reasons that may or may not be related to our products, including the advanced stage of their disease and medical problems;

patients in the placebo or untreated control group exhibit greater than expected improvements or fewer than expected adverse events;

third-party clinical investigators do not perform the clinical studies on the anticipated schedule or consistent with the clinical study protocol and good clinical practices, or other third-party organizations do not perform data collection and analysis in a timely or accurate manner;

service providers, collaborators or co-sponsors do not adequately perform their obligations in relation to the clinical study or cause the study to be delayed or terminated;

regulatory inspections of manufacturing facilities, which may, among other things, require us or a co-sponsor to undertake corrective action or suspend the clinical studies;

the interim results of the clinical study are inconclusive or negative;

the clinical study, although approved and completed, generates data that is not considered by the FDA or others to be sufficient to demonstrate safety and efficacy; and

changes in governmental regulations or administrative actions affect the conduct of the clinical trial or the interpretation of its results. Significant delays may adversely affect our financial results and the commercial prospects for our product candidates and delay our ability to become profitable.

***If we cannot successfully complete the clinical trial process for our product candidates, or products for which we seek expanded approvals, then we will not be able to market them. Even successful clinical trials may not result in a marketable product and may not be predictive of a product's safety or efficacy in a larger and more diverse patient population.***

Our Celsius Control System acquired from InnerCool Therapies has received FDA 510(k) clearance for certain specified indications but we may elect to pursue other indications, which would generally require that collaborators or we conduct additional clinical studies and/or testing. Our Generx and Excellerate product candidates are currently in the clinical stage. Other product candidates are in the pre-clinical stage and there can be no assurance they will ever advance to clinical trials. For product candidates that advance to clinical testing, we cannot be certain that a collaborator or we will successfully complete the clinical trials necessary to receive regulatory product approvals. This process is lengthy, unpredictable and expensive. To obtain regulatory approvals, a collaborative partner or we must ultimately demonstrate to the satisfaction of the FDA and others that our product candidates are sufficiently safe and effective for their proposed use.

Many factors, known and unknown, can adversely impact clinical trials and the ability to evaluate a product's safety and efficacy. Such factors may have a negative impact on our business by making it difficult to advance product candidates or by reducing or eliminating their potential or perceived value. Further, if we are forced to contribute greater financial and clinical resources to a study, valuable resources will be diverted from other areas of our business.

Clinical trials for products such as ours are often conducted with patients who have more advanced forms of a particular disease. For example, in clinical trials for our lead product candidate Generx, we expect to study patients who are not only suffering from severe forms of heart disease but are also older and much more likely to develop cancers and other serious adverse conditions. During the course of treatment, these patients

could die or suffer other adverse events for reasons that may or may not be related to the proposed product being tested. Our

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clinical trials may also be adversely impacted by patient deaths or problems that occur in other trials. However, even if unrelated to our product, such events can nevertheless adversely impact our clinical trials. As a result, our business and ability to ultimately develop and market the products and obtain revenues would suffer.

Deaths and other adverse events that occur in the conduct of clinical trials may also result in an increase in governmental regulations or litigation, and could result in delays or halts being imposed upon clinical trials, including our own. In addition, patients involved in clinical trials such as ours often have unknown as well as known health risks and pre-existing conditions. An adverse event may therefore appear to have been caused or exacerbated by the administration of study product, even if it was not actually related. Such consequences can also increase the risk that any potential adverse event in our trial could give rise to claims for damages against us, or could cause further delays or halt our clinical trial, any of which results would negatively impact us. In addition, fears regarding the potential consequences of gene therapy trials or the conduct of such trials could dissuade investigators or patients from participating in our trials, which could substantially delay or prevent our product development efforts.

Even promising results in pre-clinical studies and initial clinical trials do not ensure successful results in later clinical trials, which test broader human use of our products. Many companies in our industry have suffered significant setbacks in advanced clinical trials, despite promising results in earlier trials. Even successful clinical trials may not result in a marketable product or be indicative of the efficacy or safety of a product in the broader patient population. Many factors or variables could affect the results of clinical trials and cause them to appear more promising than they may otherwise be. Product candidates that successfully complete clinical trials could ultimately be found to be unsafe or ineffective or to have poorer risk to benefit or cost to benefit profiles as compared to other potential products or therapies.

Our ability to complete clinical trials depends on many factors, including obtaining adequate clinical supplies and having a sufficient rate of patient recruitment. For example, patient recruitment is a function of many factors, including: the size of the patient population; the proximity of patients to clinical sites; the eligibility criteria for the trial; the perceptions of investigators and patients regarding safety; and the availability of other treatment options. Even if patients are successfully recruited, we cannot be sure they will complete the treatment process. Delays in patient enrollment or treatment in clinical trials may result in increased costs, program delays, or failure, any of which can substantially affect our business or perceived value.

In addition, DNA-based therapies such as those being developed by us are relatively new and are only beginning to be tested in humans. Regulatory authorities may require us or our potential collaborators to demonstrate that our products are improved treatments relative to other therapies or may significantly modify the requirements governing gene therapies, which could result in regulatory delays or rejections that negatively impact our business. Compliance with these regulatory requirements is also time consuming and expensive. If we fail to comply with regulatory requirements, either before approval or in marketing our products after approval, we could be subject to regulatory or judicial enforcement actions. These actions could result in withdrawal of existing approvals, product recalls, injunctions, civil penalties, criminal prosecution, and enhanced exposure to product liabilities.

Ethical, social and legal concerns about gene therapy and genetic research could also result in additional regulations restricting or prohibiting our products and processes we may use. More restrictive government regulations or negative public opinion may have a negative effect on our business or financial condition and may delay or impair the development and commercialization of our product candidates.

With respect to markets in other countries, we or a partner will also be subject to regulatory requirements governing clinical trials in those countries. Even if we complete clinical trials, we may not be able to submit a marketing application. If we submit an application, the regulatory authorities may not review or approve it in a timely manner, if at all.

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***Our technologies and product candidates may have unacceptable side effects that could delay or prevent product approval.***

Possible side effects of therapeutic technologies may be serious and life threatening. The occurrence of any unacceptable side effects during or after pre-clinical and clinical testing of our product candidates, or the perception or possibility that our products cause or could cause such side effects, could delay or prevent approval of our products and negatively impact our business. For example, possible serious side effects of viral vector-based gene transfer could potentially include viral or gene product toxicity resulting in inflammation or other injury to the heart or other parts of the body. In addition, the development or worsening of cancer in a patient could potentially be a perceived or actual side effect of gene therapy technologies such as our own. Furthermore, there is a possibility of side effects or decreased effectiveness associated with an immune response toward any viral vector or gene used in gene therapy. The possibility of such response may increase if there is a need to deliver the viral vector more than once.

***Even if approved for marketing, our technologies and product candidates are relatively novel and unproven and they may fail to gain market acceptance.***

Our ongoing business and future depends on the success of our technologies and product candidates. Gene-based therapy and endovascular temperature control therapy are new and rapidly evolving medical approaches that have not been shown to be effective on a widespread basis. Biotechnology and pharmaceutical companies have successfully developed and commercialized only a limited number of biologic-based products to date and no gene therapy has yet been successfully commercialized. Our product candidates, and the technology underlying them, are new and unproven and there is no guarantee that health care providers or patients will be interested in our products even if they are approved for use. Our success will depend in part on our ability to demonstrate sufficient clinical benefits, reliability, safety and cost effectiveness of our product candidates and technology relative to other approaches, as well as on our ability to continue to develop our product candidates to respond to competitive and technological changes. If the market does not accept our products or product candidates, when and if we are able to commercialize them, then we may never become profitable. It is difficult to predict the future growth of our business, if any, and the size of the market for our product candidates because the market and technology are continually evolving. There can be no assurance that our technologies and product candidates will prove superior to technologies and products that may currently be available or may become available in the future or that our technologies or research and development activities will result in any commercially profitable products.

***We may not successfully establish and maintain collaborative and licensing arrangements, which could adversely affect our ability to develop and commercialize our product candidates.***

Our strategy for the development, testing, manufacturing and commercialization of our product candidates generally relies on establishing and maintaining collaborations with corporate partners, licensors and other third parties. For example, we have licenses from New York University and the University of California relating to the use and delivery of our Generx product candidates for the treatment of vascular disease, as well as a relationship with Schering AG Group (Germany) regarding the transfer of information about certain manufacturing and regulatory matters concerning our product candidates. We may not be able to maintain or expand these licenses and collaborations or establish additional licensing and collaboration arrangements necessary to develop and commercialize our product candidates. Even if we are able to maintain or establish licensing or collaboration arrangements, these arrangements may not be on favorable terms and may contain provisions that will restrict our ability to develop, test and market our product candidates. Any failure to maintain or establish licensing or collaboration arrangements on favorable terms could adversely affect our business prospects, financial condition or ability to develop and commercialize our product candidates.

We expect to rely at least in part on third party service providers and collaborators to perform a number of activities relating to the development and commercialization of our product candidates, including the

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manufacture of product materials, the design and conduct of clinical trials, and potentially the obtaining of regulatory approvals and the marketing and distribution of any successfully developed products. Our collaborative partners also may have or acquire rights to control aspects of our product development and clinical programs. As a result, we may not be able to conduct these programs in the manner or on the time schedule we currently contemplate. In addition, if any of these collaborative partners withdraw support for our programs or product candidates or otherwise impair their development, our business could be negatively affected. To the extent we undertake any of these activities internally, our expenses may increase.

Our success hinges on the proper and effective performance of our service providers and collaborators of their responsibilities under their arrangements with us. Our existing or potential collaborators may not perform their obligations in a timely fashion or in a manner satisfactory to us. We and our present and future collaborators may fail to develop or effectively commercialize products covered by our present and future collaborations if, among other things:

we do not achieve our objectives under our collaboration agreements;

we or our collaborators are unable to obtain patent protection for the products or proprietary technologies we develop in our collaborations;

we are unable to manage multiple simultaneous product discovery and development collaborations;

our collaborators become competitors of ours or enter into agreements with our competitors;

we or our collaborators encounter regulatory hurdles that prevent commercialization of our products; or

we develop products and processes or enter into additional collaborations that conflict with the business objectives of our other collaborators.

In addition, conflicts may arise with our collaborators, such as conflicts concerning the interpretation of clinical data, the achievement of milestones, the interpretation of financial provisions or the ownership of intellectual property developed during the collaboration. If any conflicts arise with our existing or future collaborators, they may act in their self-interest, which may be adverse to our best interest. If we or our collaborators are unable to develop or commercialize products, or if conflicts arise with our collaborators, we will be delayed or prevented from developing and commercializing products, which will harm our business and financial results.

***We will rely on third parties to manufacture our product candidates. There can be no guarantee that we can obtain sufficient and acceptable quantities of our product candidates on acceptable terms, which may delay or impair our ability to develop, test and market such products.***

Our business strategy relies on third parties to manufacture and produce our products and product candidates and the catheters used to deliver the products in accordance with good manufacturing practices established by the FDA and other regulators. For example, we entered into a Production Service Agreement with Molecular Medicine Bioservices, Inc. pursuant to which Molecular Medicine agreed to manufacture our lead product candidate, Generx, for late-stage clinical development. These third party manufacturers are subject to extensive government regulation and must receive FDA approval before they can produce clinical material or commercial product.

Our products and product candidates may be in competition with other products for access to these facilities and may be subject to delays in manufacture if third parties give other products greater priority than our products. These third parties also may not deliver sufficient quantities of our products, manufacture our products in accordance with specifications, or comply with applicable government regulations. Successful large-scale manufacturing of gene-based therapy products has been accomplished by very few companies, and it is anticipated that significant process development changes will be necessary before commercializing and



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manufacturing any of our biologic product candidates. Additionally, if the manufactured products fail to perform as specified, our business and reputation could be severely impacted.

If any manufacturing agreement is terminated or any third party service provider or collaborator experiences a significant problem that could result in a delay or interruption in the supply of product materials to us, there are very few contract manufacturers who currently have the capability to produce our product candidates. There can be no assurance that manufacturers on whom we depend will be able to successfully produce our products or product candidates on acceptable terms, or on a timely or cost-effective basis, or in accordance with our product specifications and applicable FDA or other governmental regulations. We must have sufficient and acceptable quantities of our product materials to conduct our clinical trials and to market our product candidates, if and when such products have been approved by the FDA for marketing. If we are unable to obtain sufficient and acceptable quantities of our product material, we may be required to delay the clinical testing and marketing of our products, which would negatively impact our business.

***If we do not comply with applicable regulatory requirements in the manufacture and distribution of our products and product candidates, we may incur penalties that may inhibit our ability to commercialize our products and adversely affect our financial condition and ability to become profitable.***

Our failure or the failure of our potential collaborators or third party manufacturers to comply with applicable FDA or other product-related regulatory requirements including manufacturing, quality control, labeling, safety surveillance, promoting and reporting may result in criminal prosecution, civil penalties, recall or seizure of our products, total or partial suspension of production or an injunction, as well as other regulatory action against our products, product candidates or us. Discovery of previously unknown problems with a product, supplier, manufacturer or facility may result in restrictions on the sale of our products, including a withdrawal of such products from the market. The occurrence of any of these events would negatively impact our business and results of operations.

***If we are unable to create and maintain sales, marketing and distribution capabilities or enter into agreements with third parties to perform those functions, we will not be able to commercialize our product candidates or market our products.***

We currently have limited sales, marketing and distribution capabilities in connection with our InnerCool products and none with respect to our other product candidates, which are not yet approved for marketing. To commercialize our other product candidates, if and when such products have been approved and are ready for marketing, we expect either to collaborate with third parties to perform these functions or develop them internally.

We have little experience in developing, training or managing a sales force and will incur substantial additional expenses for any products that we market directly. Developing a marketing and sales force is also time consuming and could delay the launch of new products or expansion of existing product sales. We expect that we will need to develop additional marketing and sales personnel, and/or work with outside providers, to achieve increased sales of our InnerCool products. In addition, we will compete with many companies that currently have extensive and well-funded marketing and sales operations. Our marketing and sales efforts may be unable to compete successfully against these companies, in which event our business prospects may suffer.

***We face intense and increasing competition and must cope with rapid technological change, which may adversely affect our financial condition and/or our ability to successfully commercialize and/or market our products and product candidates.***

Our competitors and potential competitors include large pharmaceutical and medical device companies and more established biotechnology companies. These companies have significantly greater financial and other resources and greater expertise than us in research and development, manufacturing, pre-clinical and clinical

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testing, obtaining regulatory approvals and marketing. This may make it easier for them to respond more quickly than us to new or changing opportunities, technologies or market needs. Small companies may also prove to be significant competitors, particularly through collaborative arrangements with large pharmaceutical companies or through acquisition or development of intellectual property rights. Our larger competitors may be able to devote greater resources to research and development, marketing, distribution and other activities that could provide them with a competitive advantage. Many of these competitors operate large, well-funded research and development programs and have significant products approved or in development. Our potential competitors also include academic institutions, governmental agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for product and clinical development and marketing.

We are engaged in DNA-based therapies and temperature control therapy. Our industry is characterized by extensive research and development, rapid technological change, frequent innovations and new product introductions, and evolving industry standards. Existing products and therapies to treat vascular and cardiovascular disease, including drugs and surgical procedures, as well as competitive approaches to temperature control therapy such as those being developed by Alsius Corporation, Radiant Medical, Medivance, Gaymar Industries and Cincinnati Sub-Zero, will compete directly or indirectly with the products that we are seeking to develop and market. In addition, our competitors may develop more effective or more affordable products, or achieve earlier patent protection or product commercialization and market penetration than us. As these competitors develop their technologies, they may develop proprietary positions that prevent us from successfully commercializing our future products. To be successful, we must be able to adapt to rapidly changing technologies by continually enhancing our products and introducing new products. If we are unable to adapt, products and technologies developed by our competitors may render our products and product candidates uneconomical or obsolete, and we may not be successful in marketing our products and product candidates against competitors. We may never be able to capture and maintain the market share necessary for growth and profitability and there is no guarantee we will be able to compete successfully against current or future competitors.

***Changes and reforms in the health care system or reimbursement policies may adversely affect the sale of our products and future products or our ability to obtain an adequate level of reimbursement or acceptable prices for our products or future products.***

Other than InnerCool's Celsius Control System and associated disposables, we currently have no products approved for marketing. Our ability to earn sufficient returns on our products and future products, if and when such products are approved and ready for marketing, will depend in part on the extent to which reimbursement for our products and related treatments will be available from government health administration authorities, private health coverage insurers, managed care organizations and other third-party payers. If we fail to obtain appropriate reimbursement, it could prevent us from successfully commercializing and marketing our products and future products.

There have been and will continue to be efforts by governmental and third-party payers to contain or reduce the costs of health care through various means, including limiting coverage and the level of reimbursement. We expect that there will continue to be a number of legislative proposals to implement government controls and other reforms to limit coverage and reimbursement. Additionally, third-party payers, including Medicare, are increasingly challenging the price of medical products and services and are limiting the reimbursement levels offered to consumers for these medical products and services. If purchasers or users of our products or future products are not able to obtain adequate reimbursement from third-party payers for the cost of using the products, they may forego or reduce their use. Significant uncertainty exists as to the reimbursement status of newly approved health care products, including gene therapy and therapeutic hypothermia treatments, and whether adequate third-party coverage will be available. The announcement or considerations of these proposals or reforms could impair our ability to raise capital and negatively affect our business.



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***If we are unable to attract and retain key personnel and advisors, it may adversely affect our ability to obtain financing, pursue collaborations or develop or market our products or product candidates.***

Our future success depends on our ability to attract, retain and motivate highly qualified management and scientific and regulatory personnel and advisors, as well as production, marketing and sales personnel in connection with our InnerCool products. The loss of any of our senior management team, in particular Christopher J. Reinhard, our Chairman of the Board, Chief Executive Officer, President and Treasurer, Tyler M. Dylan, our director, Chief Business Officer, General Counsel, Executive Vice President and Secretary, and Dennis M. Mulroy, our Chief Financial Officer, or our vice presidents, or the operating officers of our subsidiaries, could harm our business.

To pursue our business strategy, we will need to hire or otherwise engage qualified scientific personnel and managers, including personnel with expertise in clinical trials, government regulation, manufacturing, marketing and other areas. Competition for qualified personnel is intense among companies, academic institutions and other organizations. If we are unable to attract and retain key personnel and advisors, it may negatively affect our ability to successfully develop, test, commercialize and market our products and product candidates.

***Our facilities are located in or near seismic zones, and an earthquake or other natural disaster or resource shortage could delay our research and development efforts and adversely affect our business.***

Our headquarters and research and development facilities in San Diego, California, and our third party manufacturing facilities in Carlsbad, California, are both located in or near seismic zones, and there is a constant possibility that an earthquake or other natural disaster or resource shortage could be disruptive to our operations and result in delays in our research and development efforts. In the event of a natural or other disaster such as earthquake, fire, flood or terrorist attack, if our facilities or the equipment in our facilities, or our clinical supplies, are significantly damaged or destroyed, we may not be able to rebuild or relocate our facility or replace any damaged equipment, records or clinical supplies in a timely manner and our business, financial condition and results of operations could be materially and adversely affected.

***We will use hazardous and biological materials in our business. Any claims relating to improper handling, storage or disposal of these materials could be time consuming and costly.***

Our products and processes will involve the controlled storage, use and disposal of certain hazardous and biological materials and waste products. We and our suppliers and other collaborators are subject to federal, state and local regulations governing the use, manufacture, storage, handling and disposal of materials and waste products. Even if we and these suppliers and collaborators comply with the standards prescribed by law and regulation, the risk of accidental contamination or injury from hazardous materials cannot be completely eliminated. In the event of an accident, we could be held liable for any damages that result, and any liability could exceed the limits or fall outside the coverage of any insurance we may obtain and exceed our financial resources. We may not be able to maintain insurance on acceptable terms, or at all. We may incur significant costs to comply with current or future environmental laws and regulations.

***To the extent we enter markets outside the United States, our business will be subject to political, economic, legal and social risks in those markets, which could adversely affect our business.***

There are significant regulatory and legal barriers in markets outside the United States that we must overcome to the extent we enter or attempt to enter markets in countries other than the United States. We will be subject to the burden of complying with a wide variety of national and local laws, including multiple and possibly overlapping and conflicting laws. We also may experience difficulties adapting to new cultures, business customs and legal systems. Any sales and operations outside the United States, including those associated with our InnerCool products, would be subject to political, economic and social uncertainties including, among others:

changes and limits in import and export controls;

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increases in custom duties and tariffs;

changes in currency exchange rates;

economic and political instability;

changes in government regulations and laws;

absence in some jurisdictions of effective laws to protect our intellectual property rights; and

currency transfer and other restrictions and regulations that may limit our ability to sell certain products or repatriate profits to the United States.

Any changes related to these and other factors could adversely affect our business to the extent we enter markets outside the United States.

### ***Risks Related to Our Intellectual Property and Potential Litigation***

***If our products and product candidates are not effectively protected by valid, issued patents or if we are not otherwise able to protect our proprietary information, or if our right to use intellectual property that we license from third parties is terminated or adversely affected, our financial condition, operations or ability to develop and commercialize our product candidates may be harmed.***

The success of our operations will depend in part on our ability and that of our licensors to: obtain patent protection for our gene therapy, therapeutic genes and/or gene-delivery methods, temperature control devices and procedures, and other methods or components on which we rely both in the United States and in other countries with substantial markets; defend patents once obtained; maintain trade secrets and operate without infringing upon the patents and proprietary rights of others; and obtain appropriate licenses upon reasonable terms to patents or proprietary rights held by others that are necessary or useful to us in commercializing our technology, both in the United States and in other countries with substantial markets.

Our business substantially relies on our own or in-licensed intellectual property related to various technologies that are material to our products and processes. We depend on our and our licensors' abilities to successfully prosecute and enforce the patents, file patent applications and prevent infringement of those patents and patent applications. The licenses and other intellectual property rights we acquire may or may not provide us with exclusive rights. To the extent we do not have exclusive rights, others may license the same technology and may develop the technology more successfully or may develop products similar to ours and that compete with our products. Even if we are provided with exclusive rights, the scope of our rights under our licenses may be subject to dispute and termination or reduction by our licensors or third parties. Our licenses also contain milestones that we must meet and/or minimum royalty or other payments that we must make to maintain the licenses. There is no assurance that we will be able to meet such milestones and/or make such payments. Our licenses may be terminated if we fail to meet applicable milestones or make applicable payments.

***If we are not able to maintain adequate patent protection for our products and product candidates, we may be unable to prevent our competitors from using our technology or technology that we license.***

The patent positions of the technologies being developed by us and our collaborators involve complex legal and factual uncertainties. As a result, we cannot be certain that we or our collaborators will be able to obtain adequate patent protection for our products or product candidates. There can be no assurance that (i) any patents will be issued from any pending or future patent applications of ours or our collaborators; (ii) the scope of any patent protection will be sufficient to provide us with competitive advantages; (iii) any patents obtained by us or our collaborators will be held valid if subsequently challenged; or (iv) others will not claim rights in or ownership of the patents and other proprietary rights we or our collaborators may hold. Unauthorized parties may try to copy aspects of our products and technologies or obtain and use information we consider proprietary. Policing the unauthorized use of our proprietary rights is difficult. We cannot guarantee that no harm or threat



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will be made to our or our collaborators' intellectual property. In addition, changes in, or different interpretations of, patent laws in the United States and other countries may also adversely affect the scope of our patent protection and our competitive situation.

Due to the significant time lag between the filing of patent applications and the publication of such patents, we cannot be certain that our licensors were the first to file the patent applications we license or, even if they were the first to file, also were the first to invent, particularly with regards to patent rights in the United States. In addition, a number of pharmaceutical and biotechnology companies and research and academic institutions have developed technologies, filed patent applications or received patents on various technologies that may be related to our operations. Some of these technologies, applications or patents may conflict with our or our licensors' technologies or patent applications. A conflict could limit the scope of the patents, if any, that we or our licensors may be able to obtain or result in denial of our or our licensors' patent applications. If patents that cover our activities are issued to other companies, we may not be able to develop or obtain alternative technology.

Patents issued and patent applications filed internationally relating to gene therapy, temperature control therapy, and other of our technologies are numerous, and we cannot assure you that current and potential competitors or other third parties have not filed or received, or will not file or receive applications in the future for patents or obtain additional proprietary rights relating to products or processes used or proposed to be used by us.

Additionally, there is certain subject matter that is patentable in the United States but not generally patentable outside of the United States. Differences in what constitutes patentable subject matter in various countries may limit the protection we can obtain outside of the United States. For example, methods of treating humans are not patentable in many countries outside of the United States. These and other issues may prevent us from obtaining patent protection outside of the United States, which would have a material adverse effect on our business, financial condition and results of operations.

***We may be subject to costly claims, and, if we are unsuccessful in resolving conflicts regarding patent rights, we may be prevented from developing, commercializing or marketing our products and/ or product candidates.***

There has been, and will likely continue to be, substantial litigation regarding patent and other intellectual property rights in the biotechnology industry. As the biotechnology industry expands and more patents are issued, the risk increases that our processes, technology, products and product candidates may give rise to claims that they infringe on the patents of others. Others could bring legal actions against us claiming damages and seeking to stop clinical testing, manufacturing and marketing of the affected product or use of the affected process. Litigation may be necessary to enforce our or our licensors' proprietary rights or to determine the enforceability, scope and validity of the proprietary rights of others. If we become involved in litigation, it could be costly and divert our efforts and resources. In addition, if any of our competitors file patent applications in the United States claiming technology also invented by us or our licensors, we may need to participate in interference proceedings held by the U.S. Patent and Trademark Office to determine priority of invention and the right to a patent for the technology. Like litigation, interference proceedings can be lengthy and often result in substantial costs and diversion of resources.

For example, in connection with our exclusive license to the University of California's technology for cardiovascular gene therapy (filed by Hammond et al., an international application of which was published as WO96/26742), we and our predecessor in interest Collateral Therapeutics have assisted the University of California in an interference proceeding against a patent application filed by Jeffrey Leiden et al. (a U.S. counterpart of international application PCT/US93/11133, which published as WO94/11506). In the interference, which is essentially a contest to determine priority of invention, a panel of Administrative Patent Judges of the U.S. Board of Patent Appeals and Interferences or BPAI issued judgment against the Leiden applicants, ordering that the interference count, which represents the disputed subject matter, be awarded to Hammond, and that

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Leiden et al. be held not entitled to any patent containing claims corresponding to those in the interference. However, the patent applicant, Arch Development Corporation, which had licensed the technology to Boston Scientific Corporation, subsequently appealed the decision against them. In May 2006, the U.S. Court of Appeals for the Federal Circuit, which hears appeals in U.S. patent cases, refused requests by Arch and Boston Scientific to reverse the prior decision of the BPAI regarding priority of invention. The Federal Circuit also refused requests to remand the case for reconsideration of previously contested matters such as the novelty, nonobviousness or validity of the Hammond patents, and it summarily issued final judgment against the Leiden applicants. Appeals from decisions of the Federal Circuit to the U.S. Supreme Court are rarely granted under such circumstances and were not sought. In a related matter, Collateral Therapeutics, with our assistance, successfully opposed a European counterpart to the Leiden PCT application (EP-B-668913), which led to a decision to revoke the patent grant in Europe. Although the patentee, Arch Development Corporation, subsequently appealed the adverse decision, a ruling following appeal to the European Patent Office's Technical Board of Appeal has now been rendered and the European patent grant to Arch (which had been licensed to Boston Scientific) has now been revoked. If we do not continue to be successful in defending against these and any other adverse claims, we could be compelled to seek licenses from one or more third parties who could be direct or indirect competitors and who might not make licenses available on terms that we find commercially reasonable or at all. In addition, such proceedings, even if decided in our favor, involve lengthy processes, are subject to appeals, and typically result in substantial costs and diversion of resources.

As more potentially competing patent applications are filed, and as more patents are actually issued, in the fields of gene therapy, wound healing, adenoviral vectors or therapeutic hypothermia or in other fields in which we may become involved and with respect to component methods or compositions that we may employ, the risk increases that we or our licensors may be subjected to litigation or other proceedings that claim damages or seek to stop our manufacturing, marketing, product development or commercialization efforts. Even if such patent applications or patents are ultimately proven to be invalid, unenforceable or non-infringed, such proceedings are generally expensive and time consuming and could consume a significant portion of our resources and substantially impair our marketing and product development efforts.

If there were an adverse outcome of any litigation or interference proceeding, we could have a potential liability for significant damages. In addition, we could be required to obtain a license to continue to make or market the affected product or use the affected process, or face an injunction to block our sale or marketing of affected products or use of the affected process. Costs of a license may be substantial and could include up-front payments as well as ongoing royalties. We may not be able to obtain such a license on acceptable terms, or at all, which could substantially impact our business.

***We may not have adequate protection for our unpatented proprietary information, which could adversely affect our competitive position.***

We also rely on trade secrets, know-how, continuing technological innovations and licensing opportunities to develop and maintain our competitive position. However, others may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose our technology. To protect our trade secrets, we may enter into confidentiality agreements with employees, consultants and potential collaborators. However, these agreements may not provide meaningful protection of our trade secrets or adequate remedies in the event of unauthorized use or disclosure of such information. Likewise, our trade secrets or know-how may become known through other means or be independently discovered by our competitors. Any of these events could prevent us from developing or commercializing our product candidates.

***We face the risk of product liability claims, which could adversely affect our business and financial condition.***

Our marketing and sale of therapeutic hypothermia products as well as our other operations will expose us to product liability risks that are inherent in the testing, manufacturing and marketing of biotechnology and

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medical device products. Failure to obtain or maintain sufficient product liability insurance or otherwise protect against product liability claims could prevent or delay the commercialization or marketing of our products or product candidates or expose us to substantial liabilities and diversions of resources, all of which can negatively impact our business. Regardless of the merit or eventual outcome, product liability claims may result in withdrawal of product candidates from clinical trials, costs of litigation, damage to our reputation, substantial monetary awards to plaintiffs and decreased demand for products.

Product liability may result from harm to patients using our products, such as a complication that was either not communicated as a potential side effect or was more extreme than communicated. We will require all patients enrolled in our clinical trials to sign consents, which explain various risks involved with participating in the trial. However, patient consents provide only a limited level of protection, and it may be alleged that the consent did not address or did not adequately address a risk that the patient suffered from. Additionally, we will generally be required to indemnify the clinical product manufacturers, clinical trial centers, medical professionals and other parties conducting related activities in connection with losses they may incur through their involvement in the clinical trials. We may not be able to obtain or maintain product liability insurance on acceptable terms or with adequate coverage against potential liabilities.

### ***Risks Related to Our Common Stock***

***The price of our common stock is expected to be volatile and an investment in our common stock could decline substantially in value.***

In light of our small size and limited resources, as well as the uncertainties and risks that can affect our business and industry, our stock price is expected to be highly volatile and can be subject to substantial drops, with or even in the absence of news affecting our business. The following factors, in addition to the other risk factors described in this report, and the potentially low volume of trades in our common stock, may have a significant impact on the market price of our common stock, some of which are beyond our control:

anticipated or unanticipated changes in financial conditions, operating results or the perceived value of our business;

developments concerning any research and development, clinical trials, manufacturing, and marketing efforts or collaborations;

our announcement of significant acquisitions, strategic partnerships, joint ventures or capital commitments;

announcements of technological innovations;

new products or services that we or our competitors offer;

the initiation, conduct and/or outcome of intellectual property and/or litigation matters;

changes in financial or other estimates by securities analysts or other reviewers or evaluators of our business;

conditions or trends in bio-pharmaceutical or other healthcare industries;

regulatory developments in the United States and other countries;

changes in the economic performance and/or market valuations of other biotechnology and medical device companies;

additions or departures of key personnel;

sales or other transactions involving our common stock; and

global unrest, terrorist activities, and economic and other external factors.

The stock market in general has recently experienced relatively large price and volume fluctuations. In particular, the market prices of securities of smaller biotechnology and medical device companies have

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experienced dramatic fluctuations that often have been unrelated or disproportionate to the operating results of these companies. Continued market fluctuations could result in extreme volatility in the price of the common stock, which could cause a decline in the value of the common stock. You should also be aware that price volatility may be worse if the trading volume of the common stock remains limited or declines.

*We could be difficult to acquire due to anti-takeover provisions in our charter, our stockholder rights plan and Delaware law.*

Our board of directors has adopted a stockholder rights plan in which preferred stock purchase rights were distributed as a dividend. These provisions may make it more difficult for stockholders to take corporate actions and may have the effect of delaying or preventing a change in control. These provisions also could deter or prevent transactions that stockholders deem to be in their interests. In addition, we are subject to the anti-takeover provisions of Section 203 of the Delaware General Corporation Law. Subject to specified exceptions, this section provides that a corporation may not engage in any business combination with any interested stockholder during the three-year period following the time that such stockholder becomes an interested stockholder. This provision could have the effect of delaying or preventing a change of control of our company. The foregoing factors could reduce the price that investors or an acquirer might be willing to pay in the future for shares of our common stock.

*We have never paid cash dividends on our capital stock and we do not anticipate paying dividends in the foreseeable future.*

We have paid no cash dividends on any of our classes of capital stock to date, and we currently intend to retain our future earnings, if any, to fund the development and growth of our business. In addition, the terms of any future debt or credit facility may preclude or limit our ability to pay any dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of potential gain for the foreseeable future.

## **Off-Balance Sheet Arrangements**

As of December 31, 2006, we did not have any significant off-balance sheet debt nor did we have any transactions, arrangements, obligations (including contingent obligations) or other relationships with any unconsolidated entities or other persons that have or are reasonably likely to have a material current or future effect on financial condition, changes in financial condition, results of operations, liquidity, capital expenditures, capital resources, or significant components of revenue or expenses material to investors. We do have operating lease obligations of \$2,562,000 extending through 2010.

## **Critical Accounting Policies and Estimates**

Our financial statements included under Item 7 in this report have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The preparation of financial statements in accordance with GAAP requires that we make estimates and assumptions that affect the amounts reported in our financial statements and their accompanying notes. We have identified certain policies that we believe are important to the portrayal of our financial condition and results of operations. These policies require the application of significant judgment by our management. We base our estimates on our historical experience, industry standards, and various other assumptions that we believe are reasonable under the circumstances. Actual results could differ from these estimates under different assumptions or conditions. An adverse effect on our financial condition, changes in financial condition, and results of operations could occur if circumstances change that alter the various assumptions or conditions used in such estimates or assumptions. Our significant accounting policies are described in the notes to our financial statements.



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### **Recent Accounting Pronouncements**

In February 2006, the Financial Accounting Standards Board ( FASB ) issued SFAS No. 155, Accounting for Certain Hybrid Financial Instruments , which eliminates the exemption from applying SFAS 133 to interests in securitized financial assets so that similar instruments are accounted for similarly regardless of the form of the instruments. SFAS 155 also allows the election of fair value measurement at acquisition, at issuance, or when a previously recognized financial instrument is subject to a remeasurement event. Adoption is effective for all financial instruments acquired or issued after the beginning of the first fiscal year that begins after September 15, 2006. Early adoption is permitted. The adoption of SFAS 155 is not expected to have a material effect on the Company s consolidated financial position, results of operations or cash flows.

In March 2006, the FASB issued SFAS No. 156, Accounting for Servicing of Financial Assets, which requires all separately recognized servicing assets and servicing liabilities be initially measured at fair value. SFAS 156 permits, but does not require, the subsequent measurement of servicing assets and servicing liabilities at fair value. Adoption is required as of the beginning of the first fiscal year that begins after September 15, 2006. Early adoption is permitted. The adoption of SFAS 156 is not expected to have a material effect on the Company s consolidated financial position, results of operations or cash flows.

In July 2006, the FASB released FASB Interpretation No. 48, Accounting for Uncertainty in Income Taxes, an Interpretation of FASB Statement No. 109 (FIN 48). FIN 48 clarifies the accounting and reporting for uncertainties in income tax law and prescribes a comprehensive model for the financial statement recognition, measurement, presentation and disclosure of uncertain tax positions taken or expected to be taken in income tax returns. FIN 48 shall be effective for fiscal years beginning after December 15, 2006. Earlier adoption is permitted as of the beginning of an enterprise s fiscal year, provided the enterprise has not yet issued financial statements, including financial statements for any interim period for that fiscal year. The cumulative effects, if any, of applying FIN 48 will be recorded as an adjustment to retained earnings as of the beginning of the period of adoption. The adoption of FIN 48 is not expected to have a material effect on the Company s consolidated financial position, results of operations or cash flows.

In September 2006, the FASB issued SFAS No. 157, Fair Value Measurements. SFAS 157 defines fair value, establishes a framework for measuring fair value and expands disclosure of fair value measurements. SFAS 157 applies under other accounting pronouncements that require or permit fair value measurements and accordingly, does not require any new fair value measurements. SFAS 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007. The adoption of SFAS 157 is not expected to have a material effect on the Company s consolidated financial position, results of operations or cash flows.

In September 2006, the SEC issued Staff Accounting Bulletin 108, Considering the Effects on Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements (SAB 108). SAB 108 requires registrants to quantify errors using both the income statement method (i.e. iron curtain method) and the rollover method and requires adjustment if either method indicates a material error. If a correction in the current year relating to prior year errors is material to the current year, then the prior year financial information needs to be corrected. A correction to the prior year results that is not material to those years, would not require a restatement process where prior financials would be amended. SAB 108 is effective for fiscal years ending after November 15, 2006. The adoption of SAB 108 did not have a material effect on the Company s consolidated financial position, results of operations or cash flows.

In February 2007, the FASB issued SFAS No. 159, The Fair Value Option for Financial Assets and Financial Liabilities ( SFAS 159 ). SFAS 159 provides companies with an option to report selected financial assets and liabilities at fair value. The objective of SFAS 159 is to reduce both complexity in accounting for financial instruments and the volatility in earnings caused by measuring related assets and liabilities differently. Generally accepted accounting principles have required different measurement attributes for different assets and liabilities that can create artificial volatility in earnings. The FASB has indicated it believes that SFAS 159 helps

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to mitigate this type of accounting-induced volatility by enabling companies to report related assets and liabilities at fair value, which would likely reduce the need for companies to comply with detailed rules for hedge accounting. SFAS 159 also establishes presentation and disclosure requirements designed to facilitate comparisons between companies that choose different measurement attributes for similar types of assets and liabilities.

SFAS 159 does not eliminate disclosure requirements included in other accounting standards, including requirements for disclosures about fair value measurements included in SFAS 157 and SFAS No. 107, Disclosures about Fair Value of Financial Instruments. SFAS 159 is effective for the Company as of the beginning of fiscal year 2009. The Company has not yet determined the impact SFAS 159 may have on its consolidated financial position, results of operations, or cash flows.

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**ITEM 7. FINANCIAL STATEMENTS**

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Stockholders

Cardium Therapeutics, Inc.

San Diego, CA

We have audited the accompanying consolidated balance sheet of Cardium Therapeutics, Inc. and subsidiaries ( Cardium ) (a development stage company) as of December 31, 2006, and the related consolidated statements of operations, changes in stockholders' equity and cash flows for the years ended December 31, 2006 and 2005 and for the period from December 22, 2003 (date of inception) through December 31, 2006. These financial statements are the responsibility of Cardium's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing 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. Cardium is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit includes 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 Cardium'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 consolidated financial position of Cardium Therapeutics, Inc. and subsidiaries (a development stage company) as of December 31, 2006, and the consolidated results of their operations and their cash flows for the years ended December 31, 2006 and 2005 and for the period from December 22, 2003 (date of inception) through December 31, 2006, in conformity with accounting principles generally accepted in the United States of America.

/s/ MARCUM & KLIEGMAN LLP

March 12, 2007

New York, New York

**Table of Contents****CARDIUM THERAPEUTICS, INC.****(a development stage company)****CONSOLIDATED BALANCE SHEET****December 31, 2006**

<b>Assets</b>	
Current assets:	
Cash and cash equivalents	\$ 5,931,123
Accounts receivable	275,590
Inventory	857,034
Prepaid expenses	654,448
<b>Total current assets</b>	<b>7,718,195</b>
Property and equipment, net	791,277
Patented technology, net	5,327,648
Intangibles, net	228,338
Deposits	51,965
<b>Total assets</b>	<b>\$ 14,117,423</b>
<b>Liabilities and Stockholders Equity</b>	
Current liabilities:	
Accounts payable	\$ 989,021
Accrued liabilities	1,975,047
<b>Total liabilities</b>	<b>2,964,068</b>
Stockholders equity:	
Common stock, \$0.0001 par value; 200,000,000 shares authorized; 32,190,804 shares issued and outstanding	3,218
Additional paid-in capital	35,188,957
Deficit accumulated during development stage	(24,038,820)
<b>Total stockholders equity</b>	<b>11,153,355</b>
<b>Total liabilities and stockholders equity</b>	<b>\$ 14,117,423</b>

See accompanying notes, which are an integral part of these consolidated financial statements.

**Table of Contents****CARDIUM THERAPEUTICS, INC.****(a development stage company)****CONSOLIDATED STATEMENTS OF OPERATIONS**

	Years Ended December 31,		Period From December 22,
	2006	2005	2003 (Inception) to December 31, 2006
Revenues	\$ 756,137	\$	\$ 756,137
Cost of goods sold	954,194		954,194
Gross loss	(198,057)		(198,057)
<b>Operating Expenses:</b>			
Research and development	8,384,324	4,000,000	12,384,324
Selling, general and administrative	10,053,530	1,588,288	11,645,779
Amortization intangibles	673,230		673,230
Total operating expenses	19,111,084	5,588,288	24,703,333
Interest income	715,976	146,594	862,570
Net loss	\$ (18,593,165)	\$ (5,441,694)	\$ (24,038,820)
<b>Loss Per Common Share</b>			
Net loss per common share basic and diluted	\$ (0.59)	\$ (0.54)	
Weighted average shares outstanding basic and diluted	31,308,650	9,992,426	

See accompanying notes, which are an integral part of these consolidated financial statements.

**Table of Contents****CARDIUM THERAPEUTICS, INC.**

(a development stage company)

**CONSOLIDATED STATEMENT OF STOCKHOLDERS DEFICIENCY**

	Common Stock			Stock Subscription Receivable	Deficit Accumulated During Development Stage	Total Stockholders Equity
	Shares	Amount	Additional Paid-In Capital			
Balance December 22, 2003 (Date of Inception)		\$	\$	\$	\$	\$
Sale of common stock (December 31, 2003; \$.01 per share)	1,700,000	170	16,830	(17,000)		
Balance December 31, 2003	1,700,000	170	16,830	(17,000)		
Proceeds from subscription receivable				17,000		17,000
Net loss					(3,961)	(3,961)
Balance December 31, 2004	1,700,000	170	16,830		(3,961)	13,039
Issuance of common stock for services and reimbursement of expenses (April 1, 2005; \$.01 per share)	3,800,000	380	37,620			38,000
Issuance of common stock for services and reimbursement of expenses (May 20, 2005; \$.01 per share)	350,000	35	3,465			3,500
Issuance of common stock for cash (July 1, 2005; \$.01 per share)	2,000,000	200	19,800			20,000
Issuance of common stock to Aries Ventures shareholders (October 20, 2005; \$.73 per share)	2,032,226	203	1,499,797			1,500,000
Issuance of common stock for reimbursement of expenses (October 20, 2005; \$1.50 per share)	41,924	4	62,878			62,882
Issuance of common stock for cash (October 20, 2005; \$1.50 per share)	19,325,651	1932	25,540,457			25,542,389
Net loss					(5,441,694)	(5,441,694)
Balance December 31, 2005	29,249,801	2,924	27,180,847		(5,445,655)	21,738,116
Issuance of stock for purchase of business (March 8, 2006; \$2.35 per share)	2,500,000	250	5,874,750			5,875,000
Stock option compensation expense			1,634,806			1,634,806
Exercise of warrants (June 30, 2006 December 11, 2006; \$1.13 per share) see note 11	441,003	44	498,554			498,598
Net Loss					(18,593,165)	(18,593,165)
Balance December 31, 2006	32,190,804	\$ 3,218	\$ 35,188,957	\$	\$ (24,038,820)	\$ 11,153,355

*Note:* The par value of common stock and the additional paid-in capital have been adjusted to reflect the change in par value from \$0.001 to \$0.0001 on May 20, 2005.

See accompanying notes, which are an integral part of these consolidated financial statements.



**Table of Contents****CARDIUM THERAPEUTICS, INC.****(a development stage company)****CONSOLIDATED STATEMENTS OF CASH FLOWS**

	<b>Years Ended December 31,</b>		<b>Period from December 22, 2003</b>
	<b>2006</b>	<b>2005</b>	<b>(Inception) To December 31, 2006</b>
<b>Cash Flows From Operating Activities</b>			
Net loss	\$ (18,593,165)	\$ (5,441,694)	\$ (24,038,820)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation	248,041	11,646	259,687
Amortization intangibles	673,230		673,230
Common stock issued for services and reimbursement of expenses		41,500	41,500
Stock based compensation expense	1,634,806		1,634,806
In-process purchased technology	1,027,529		1,027,529
Changes in operating assets and liabilities, excluding effects of acquisition:			
Accounts receivable	(98,996)		(98,996)
Inventory	(760,370)		(760,370)
Prepaid expenses	(465,818)	(170,082)	(635,900)
Deposits	(3,828)	(21,476)	(25,304)
Accounts payable	777,722	162,869	940,591
Accrued liabilities	620,757	450,639	1,071,396
Net cash used in operating activities	(14,940,092)	(4,966,598)	(19,910,651)
<b>Cash Flows From Investing Activities</b>			
In-process technology purchased from Tissue Repair Company	(1,000,000)		(1,000,000)
Purchases of property and equipment	(467,052)	(383,843)	(850,895)
Net cash used in investing activities	(1,467,052)	(383,843)	(1,850,895)
<b>Cash Flows From Financing Activities</b>			
Proceeds from officer loan		62,882	62,882
Cash acquired in Aries merger and Innercool acquisition	51,800	1,500,000	1,551,800
Proceeds from the exercise of warrants	498,598		498,598
Proceeds from the sale of common stock		25,562,389	25,579,389
Net cash provided by financing activities	550,398	27,125,271	27,692,669
Net (decrease) increase in cash	(15,856,746)	21,774,830	5,931,123
Cash and cash equivalents at beginning of period	21,787,869	13,039	
Cash and cash equivalents at end of period	\$ 5,931,123	\$ 21,787,869	\$ 5,931,123
<b>Non-Cash Activity:</b>			
Subscription receivable for common shares	\$	\$	\$ 17,000
Common stock issued for repayment of loans	\$	\$ 62,882	\$ 62,882



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Net assets acquired for the issuance of common stock (exclusive of cash)	\$ 5,824,000	\$	\$ 5,824,000
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See accompanying notes, which are an integral part of these consolidated financial statements.

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**CARDIUM THERAPEUTICS, INC.**

**(a development stage company)**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 1 Organization**

Cardium Therapeutics, Inc. (the Company, Cardium, we, our and us ) was organized in Delaware in December 2003. We are a medical technology company primarily focused on the development, manufacture and sale of innovative products for cardiovascular and related indications. We have initially focused on acquiring fallen angel opportunities having potential unrealized value. In October 2005, we acquired a portfolio of biologic growth factors and related delivery techniques from the Schering AG Group, Germany, which we plan to develop as cardiovascular-directed growth factor therapeutics for potential use by interventional cardiologists as a one-time treatment to promote and stimulate the growth of collateral circulation in the hearts of patients with ischemic conditions such as recurrent angina. In March 2006, we acquired the technologies and products of Innercool Therapies, Inc., a medical technology company in the emerging field of therapeutic hypothermia, whose systems and products are designed to rapidly and controllably cool the body to reduce cell death and damage following acute ischemic events such as cardiac arrest and stroke, and to potentially lessen or prevent associated injuries such as adverse neurologic outcomes. In August 2006, we acquired rights to the assets and technologies of Tissue Repair Company, a company focused on the development of growth factor therapeutics for the potential treatment of tissue wounds such as chronic diabetic wounds, and whose product candidate, Excellarate™ is initially being developed as a single administration for the treatment of non-healing, neuropathic diabetic foot ulcers. Innercool Therapies and Tissue Repair Company are each operated as a wholly-owned subsidiary of Cardium.

We are a development stage company in the initial stage of our operations. We have yet to generate positive cash flows from operations, and are essentially dependent on debt and equity funding to finance our operations. Before October 2005, cash requirements were funded by loans from executive officers. In October 2005, we closed a private placement of 19,325,651 shares of our common stock at a purchase price of \$1.50 per share and received net proceeds of \$25,542,389. In connection with the offering, we completed a reverse merger, whereby Cardium merged with Aries Ventures Inc. ( Aries ), a publicly-traded company (see Note 12). As a result of these transactions, the stockholders of Cardium became the controlling stockholders of Aries. Accordingly, the acquisition of Cardium by Aries was a reverse merger. The historical financial results before the reverse merger on October 20, 2005, are those of Cardium. Aries results of operations are included in Cardium's financial results beginning October 20, 2005.

In January 2006, Aries was merged with and into Cardium, with Cardium as the surviving entity and the successor issuer to Aries. As a result, we are now in our present form a publicly-traded, Delaware corporation named Cardium Therapeutics, Inc.

**Note 2 Summary of Significant Accounting Policies**

**Basis of Presentation**

Our principal activities are expected to focus on the commercialization of our licensed technologies, other technologies and the expansion of our existing products. The accompanying financial statements have been prepared in accordance with Statement of Financial Accounting Standard ( SFAS ) No. 7, Development Stage Enterprises.

**Fair Value of Financial Instruments**

The carrying amounts of cash and cash equivalents, accounts payable, and accrued liabilities approximate fair value due to the short term maturities of these instruments.

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**Estimates**

The preparation of 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 reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

**Principles of Consolidation**

The accompanying consolidated financial statements include the financial statements of Cardium and its wholly-owned subsidiaries, Innercool Therapies, Inc. and Tissue Repair Company. All inter-company balances and transactions have been eliminated in consolidation.

**Revenue Recognition**

The Company records revenue upon the shipment of products to customers when title passes.

**Cash and Cash Equivalents**

Cash and cash equivalents, including approximately \$5,600,000 invested in short-term commercial paper and money market funds, includes all highly-liquid investments with an original maturity of three months or less at the date of purchase. We attempt to reduce our credit risk by investing our cash and cash equivalents with major banks and financial institutions located primarily in the United States. At times, cash balances held at financial institutions may exceed federally-insured limits.

**Inventories**

Inventories are stated at the lower of cost (FIFO) or market.

**Property and Equipment**

Property and equipment are stated at cost, net of accumulated depreciation. Property and equipment are depreciated on a straight-line basis over the estimated useful lives of the assets (three years for computer equipment and five years for furniture and fixtures).

**Accounting for Long-Lived Assets patented technology and other intangibles**

The Company reviews patented technology and other intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. Factors the Company considers important and that could trigger an impairment review include the following: significant underperformance relative to expected projected future operating results; significant changes in the manner of the Company's use of the acquired assets or the strategy for the Company's overall business; and significant negative industry or economic trends. Recoverability is measured by comparison of the assets' carrying amounts to their expected future undiscounted net cash flows. Identifiable patented technology and other intangibles are amortized on a straight-line basis over their respective estimated useful or legal life as follows:

<b>Intangibles</b>	<b>Life</b>
Acquired Technology	8 years
Trade Name and Trademark	6 years

**Research and Development**

In accordance with SFAS No. 2, Research and Development Expenses, research and development costs are expensed as incurred. Research and development expenses are expected to consist of purchased technology,

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purchased research and development rights and outside services for research and development activities associated with product development. In accordance with SFAS No. 2, the cost to purchase such technology and research and development rights are required to be charged to expense if there is currently no alternative future use for the technology and, therefore, no separate economic value.

### **Income Taxes**

We account for income taxes under SFAS No. 109, *Accounting for Income Taxes*. SFAS No. 109 requires the recognition of deferred tax assets and liabilities for both the expected impact of differences between the financial statements and tax basis of assets and liabilities, and for the expected future tax benefit to be derived primarily from tax loss carryforwards. We have established a valuation allowance related to the benefits of net operating losses for which utilization in future periods is uncertain. We believe it is more likely than not that we will not realize the benefits of these deductible differences in the near future and, therefore, a valuation allowance has been recorded to offset future tax benefits.

The Company has federal net operating losses available to offset future taxable income, which, if not utilized, will expire in 2026. No provision for income taxes has been recorded in the financial statements as a result of such operating losses. Any benefit for income taxes as a result of the use of our net operating losses will likely be limited as a result of cumulative changes in stock ownership.

### **Loss Per Common Share**

We compute earnings per share in accordance with SFAS No. 128, *Earnings Per Share*. SFAS No. 128 requires dual presentation of basic and diluted earnings per share.

Basic loss per common share is computed by dividing net loss by the weighted average number of common shares outstanding during the period. Diluted loss per common share is computed by dividing net loss by the weighted average number of common shares outstanding, plus the issuance of common shares, if dilutive, resulting from the exercise of outstanding stock options and warrants. These potentially dilutive securities were not included in the calculation of loss per common share for the years ended December 31, 2006 and 2005 because we incurred a loss during such periods and thus their inclusion would have been anti-dilutive. Accordingly, basic and diluted loss per common share are the same for all periods presented. The common stock issued and outstanding with respect to the stockholders of Aries has been included since October 20, 2005, the effective date of the reverse merger.

Potentially dilutive securities consisted of outstanding stock options and warrants to acquire 7,611,853 shares as of December 31, 2006. As of December 31, 2005, potentially dilutive securities consisted of outstanding stock options and warrants to acquire 4,951,818 shares.

### **Stock-Based Compensation**

Effective January 1, 2006, we adopted the fair value recognition provisions of SFAS No. 123 (revised 2004), *Share-Based Payment* (SFAS 123R), using the modified prospective transition method. Under the transition method, stock-based compensation expense is recognized (i) for all stock-based compensation awards granted before, but not yet vested as of, January 1, 2006, based on the grant date fair value estimated in accordance with the original provision of SFAS No. 123, *Accounting for Stock-Based Compensation* (SFAS 123), and (ii) for all stock-based compensation awards granted after January 1, 2006, based on the grant date fair value estimated in accordance with the provisions of SFAS 123R.

Before the adoption of SFAS 123R on January 1, 2006, the Company recognized stock-based compensation expense in accordance with Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees*, and provided pro forma disclosure amounts in accordance with SFAS No. 148, *Accounting for*

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Stock-Based Compensation Transition and Disclosure, as if the fair value method defined by SFAS 123 had been applied to its stock-based compensation. The pro forma table below reflects net loss, and net loss per common share, as if the Company had applied the fair value recognition provisions of SFAS 123 to all outstanding and unvested awards in fiscal 2005:

Net loss, as reported	\$ (5,441,694)
Add: compensation expense included in net loss	
Less: compensation expense pursuant to SFAS No. 123	(29,083)
Pro forma net loss	\$ (5,470,777)
Pro forma net loss per common share (basic and diluted)	\$ (0.55)

We recognize stock-based compensation costs on a straight-line basis over the requisite service period of the award, which is generally the vesting term of the award. Total stock-based compensation expense included in the consolidated statements of operations was \$1,634,807 for the year ended December 31, 2006, \$747,587 was recorded as a component of research and development expenses and \$887,220 was recorded as a component of general and administrative expenses. As of December 31, 2006, the Company had \$5,543,099 of unvested stock-based compensation at fair value remaining to be expensed ratably over the period January 2007 through June 2010.

The fair value of the stock options and similar stock-based compensation granted is estimated on the date of grant using the Black-Scholes option valuation model. The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. Option valuation models require the input of highly subjective assumptions, including expected life and stock price volatility. The following weighted-average assumptions were used:

	Years Ended December 31,	
	2006	2005
Dividend Yield	0%	0%
Expected life (years)	5.25	4.5
Risk-free interest rate	4.6%	4.5%
Volatility	67%	60%

**Recent Accounting Pronouncements**

In February 2006, the Financial Accounting Standards Board ( FASB ) issued SFAS No. 155, Accounting for Certain Hybrid Financial Instruments , which eliminates the exemption from applying SFAS 133 to interests in securitized financial assets so that similar instruments are accounted for similarly regardless of the form of the instruments. SFAS 155 also allows the election of fair value measurement at acquisition, at issuance, or when a previously recognized financial instrument is subject to a remeasurement event. Adoption is effective for all financial instruments acquired or issued after the beginning of the first fiscal year that begins after September 15, 2006. Early adoption is permitted. The adoption of SFAS 155 is not expected to have a material effect on the Company's consolidated financial position, results of operations or cash flows.

In March 2006, the FASB issued SFAS No. 156, Accounting for Servicing of Financial Assets, which requires all separately recognized servicing assets and servicing liabilities be initially measured at fair value. SFAS 156 permits, but does not require, the subsequent measurement of servicing assets and servicing liabilities at fair value. Adoption is required as of the beginning of the first fiscal year that begins after September 15, 2006. Early adoption is permitted. The adoption of SFAS 156 is not expected to have a material effect on the Company's consolidated financial position, results of operations or cash flows.

In July 2006, the FASB released FASB Interpretation No. 48, Accounting for Uncertainty in Income Taxes, an Interpretation of FASB Statement No. 109 (FIN 48). FIN 48 clarifies the accounting and reporting for

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uncertainties in income tax law and prescribes a comprehensive model for the financial statement recognition, measurement, presentation and disclosure of uncertain tax positions taken or expected to be taken in income tax returns. FIN 48 shall be effective for fiscal years beginning after December 15, 2006. Earlier adoption is permitted as of the beginning of an enterprise's fiscal year, provided the enterprise has not yet issued financial statements, including financial statements for any interim period for that fiscal year. The cumulative effects, if any, of applying FIN 48 will be recorded as an adjustment to retained earnings as of the beginning of the period of adoption. The adoption of FIN 48 is not expected to have a material effect on the Company's consolidated financial position, results of operations or cash flows.

In September 2006, the FASB issued SFAS No. 157, Fair Value Measurements. SFAS 157 defines fair value, establishes a framework for measuring fair value and expands disclosure of fair value measurements. SFAS 157 applies under other accounting pronouncements that require or permit fair value measurements and accordingly, does not require any new fair value measurements. SFAS 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007. The adoption of SFAS 157 is not expected to have a material effect on the Company's consolidated financial position, results of operations or cash flows.

In September 2006, the SEC issued Staff Accounting Bulletin 108, Considering the Effects on Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements (SAB 108). SAB 108 requires registrants to quantify errors using both the income statement method (i.e. iron curtain method) and the rollover method and requires adjustment if either method indicates a material error. If a correction in the current year relating to prior year errors is material to the current year, then the prior year financial information needs to be corrected. A correction to the prior year results that is not material to those years, would not require a restatement process where prior financials would be amended. SAB 108 is effective for fiscal years ending after November 15, 2006. The adoption of SAB 108 did not have an effect on the Company's consolidated financial position, results of operations or cash flows.

In February 2007, the FASB issued SFAS No. 159, The Fair Value Option for Financial Assets and Financial Liabilities (SFAS 159). SFAS 159 provides companies with an option to report selected financial assets and liabilities at fair value. The objective of SFAS 159 is to reduce both complexity in accounting for financial instruments and the volatility in earnings caused by measuring related assets and liabilities differently. Generally accepted accounting principles have required different measurement attributes for different assets and liabilities that can create artificial volatility in earnings. The FASB has indicated it believes that SFAS 159 helps to mitigate this type of accounting-induced volatility by enabling companies to report related assets and liabilities at fair value, which would likely reduce the need for companies to comply with detailed rules for hedge accounting. SFAS 159 also establishes presentation and disclosure requirements designed to facilitate comparisons between companies that choose different measurement attributes for similar types of assets and liabilities.

SFAS 159 does not eliminate disclosure requirements included in other accounting standards, including requirements for disclosures about fair value measurements included in SFAS 157 and SFAS No. 107, Disclosures about Fair Value of Financial Instruments. SFAS 159 is effective for the Company as of the beginning of fiscal year 2009. The Company has not yet determined the impact SFAS 159 may have on its consolidated financial position, results of operations, or cash flows.

**NOTE 3 Business Combinations**

***Innercool Therapies Acquisition***

On March 8, 2006, Cardium, through its wholly-owned subsidiary, Innercool Therapies, Inc., a Delaware corporation, acquired substantially all of the assets and the business of Innercool Therapies, Inc., an unaffiliated California corporation, in the development stage. As partial consideration, Cardium issued to the seller 2,500,000

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shares of Cardium's common stock. In addition, as part of the acquisition, Cardium agreed to (i) deliver to the seller \$5,000,000 (to be recorded as acquired technology) in cash or shares of Cardium's common stock, at Cardium's election, if net sales revenue from certain of Innercool's products acquired in the acquisition equals or exceeds \$20,000,000 in any one calendar year beginning with 2006 and ending December 31, 2011; (ii) assume certain liabilities of the seller in the aggregate amount of approximately \$580,000; and (iii) pay certain transaction costs associated with the acquisition and amounts that may be payable to former employees of the seller for accrued and unpaid vacation, in the aggregate, equal to approximately \$170,000, as well as certain transaction fees of \$100,000. The acquisition was recorded based on Cardium's common stock price of \$2.35 per share.

The results of operations of Innercool Therapies have been included in the accompanying consolidated financial statements from the date of acquisition. The total cost of the acquisition is as follows:

Issuance of common stock	\$ 5,875,000
Transaction costs	100,000
<b>Total purchase price</b>	<b>\$ 5,975,000</b>

The allocation of the purchase price for the Innercool Therapies acquisition as of March 8, 2006, the date of the acquisition, is as follows:

<b>Assets acquired:</b>	
Cash	\$ 51,800
Accounts receivable	176,593
Inventory	96,664
Property and equipment	110,943
Prepaid expenses	18,548
Deposits	24,381
Intangible assets (amortizable over 6 years)	264,102
Acquired technology (amortizable over 8 years)	5,965,114
<b>Total assets acquired</b>	<b>\$ 6,708,145</b>
<b>Liabilities assumed:</b>	
Accounts payable	\$ 387,105
Other accrued expenses	346,040
<b>Total liabilities assumed</b>	<b>\$ 733,145</b>
<b>Total consideration paid</b>	<b>\$ 5,975,000</b>

***Tissue Repair Company Acquisition***

On August 11, 2006, Cardium, through its newly-formed, wholly-owned subsidiary, Cardium Biologics, Inc., a Delaware corporation, acquired the rights to the assets and technologies of Tissue Repair Company, a privately-held, San Diego-based corporation. The rights acquired included product rights to a lead product candidate, Excellarate™, a DNA-activated collagen gel for topical treatment formulated with an adenovector delivery carrier encoding human platelet-derived growth factor-B (PDGF-B). Excellarate is initially being developed as a single administration for the treatment of non-healing, neuropathic diabetic foot ulcers. The Excellarate topical gel is designed to stimulate angiogenesis and granulation tissue formation through the recruitment and proliferation of chemotactic cells such as monocytes and fibroblasts, which are necessary for the stimulation of a variety of wound healing processes. The rights acquired also included technologies applicable to the treatment of ischemic heart disease. Following the acquisition, Cardium Biologics, Inc. changed its name to Tissue Repair Company (TRC).





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As consideration for the rights acquired, Cardium, through its TRC subsidiary, paid the seller \$1.0 million and assumed approximately \$120,000 in liabilities of the seller. If TRC advances the Excellerate product candidate to a Phase 2 clinical study, TRC would be obligated to pay a product advancement milestone of \$1.0 million. TRC has the right to return the assets and product rights at anytime before the milestone payment and would have no further obligation under the terms of the acquisition. If TRC successfully commercializes Excellerate, TRC would pay royalties based on worldwide net sales of such product. The royalty rate to the seller would be 10% minus any applicable third party royalties (including a royalty to the University of Michigan under a license agreement assumed by TRC), and would also be subject to a development cost-recovery offset that could be deducted at the rate of \$5.0 million per year from any applicable royalty obligations. The deduction for third party royalties would apply until worldwide net sales exceeded \$100 million per year. The cost-recovery offset would apply until TRC recovered 50% of its associated product development costs. TRC would also have a right to buy out the ongoing royalty obligation based on a one-time payment of 30% of net sales for the fifth calendar year or the first year in which sales exceeded \$250 million. If pre-specified milestones relating to the commercial development of Excellerate are not satisfied, and TRC did not elect to return the assets to the seller, then Cardium would issue to the seller stock purchase warrants to purchase up to an aggregate of 2.0 million shares of Cardium's common stock (one 500,000 share allotment for each of up to four missed events) at an exercise price of \$4.00 per share. The seller could also require TRC to return certain product rights if TRC failed to meet the Excellerate development milestones by more than six months, excluding delays caused by defined product-related limitations.

The results of operations of TRC have been included in the accompanying consolidated financial statements from the date of acquisition.

Based on our evaluation, the allocation of the purchase price for the Tissue Repair Company acquisition is as follows as of August 11, 2006, the date of the acquisition:

<b>Assets and technology acquired:</b>	
Property and equipment	\$ 89,126
Deposits	2,280
In-process Purchased Technology (research and development)	1,027,529
<b>Total assets acquired</b>	<b>\$ 1,118,935</b>
<b>Liabilities assumed:</b>	
Other accrued expenses	\$ 118,935
<b>Total liabilities assumed</b>	<b>\$ 118,935</b>
<b>Cash consideration</b>	<b>\$ 1,000,000</b>

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Unaudited pro forma consolidated financial information is presented below as if the Innercool Therapies and Tissue Repair Company acquisitions had occurred before the beginning of the periods shown. The results have been adjusted to account for the amortization of acquired technology and intangibles and other pro forma adjustments. The pro forma information presented below does not purport to present what actual results would have been if the acquisition occurred at the beginning of such periods, nor does the information project results for any future period. The unaudited pro forma consolidated financial information should be read in conjunction with the historical financial information of Cardium included in this report, as well as the historical financial information of Cardium and Innercool Therapies included in other reports and documents we file with the SEC. The unaudited pro forma consolidated financial information for the years ended December 31, 2006 and 2005 are as follows:

	2006	2005
Revenues		
Net sales	\$ 1,550,854	\$ 705,310
Net loss	(19,902,386)	(9,727,698)
Net loss per common share basic and diluted	\$ (0.63)	\$ (0.78)
Weighted average common shares outstanding basic and diluted	31,767,554	12,492,426

**Note 4 Inventory**

Inventories consist of the following as of December 31, 2006:

Raw materials	\$ 335,376
Work-in process	203,034
Finished goods	318,624
	\$ 857,034

**Note 5 Property and Equipment**

Property and equipment consists of the following as of December 31, 2006:

Computer and Telecommunication Equipment	\$ 528,447
Machinery and Equipment	135,225
Office Equipment	27,595
Instrumentation	84,000
Office Furniture and Fixtures	275,697
	1,050,964
Less: accumulated depreciation and amortization	(259,687)
Total	\$ 791,277

Depreciation and amortization of property and equipment totaled \$248,041 for the year ended December 31, 2006, \$11,646 for the year ended December 31, 2005 and \$259,687 for the period from December 22, 2003 (date of inception) through December 31, 2006.



**Table of Contents****Note 6 Patented Technology and Other Intangible Assets**

In connection with the Company's acquisition of Innercool Therapies, the Company recorded patented technology and other intangibles. The following is a summary of intangible assets at December 31, 2006.

	Cost	Accumulated Amortization	Net Asset	2006 Amortization
Acquired Technology	\$ 5,965,114	\$ 637,466	\$ 5,327,648	\$ 637,466
Tradenames and Trademarks	264,102	35,764	228,338	35,764
<b>Total</b>	<b>\$ 6,229,216</b>	<b>\$ 673,230</b>	<b>\$ 5,555,986</b>	<b>\$ 673,230</b>

Based on the carrying amount of the intangible assets as of December 31, 2006, the amortization expense for the next five years and thereafter is estimated as follows:

Year Ended	Amount
2007	\$ 828,171
2008	828,171
2009	777,762
2010	766,547
2011	766,547
Thereafter	1,588,788
<b>Total</b>	<b>\$ 5,555,986</b>

**Note 7 Accrued Liabilities**

Accrued Liabilities consisted of the following at December 31, 2006:

Accrued Consulting Expenses	\$ 37,500
Accrued Legal Expenses	70,933
Accrued Expenses Other	462,470
Accrued Payroll and Benefits	1,404,144
<b>Total</b>	<b>\$ 1,975,047</b>

**Note 8 Purchase of Technology from Schering AG**

In October 2005, we completed a transaction with Schering AG Group (Germany) and related licensors, including the University of California, New York University and Yale University, for the transfer or license of certain assets and technology relating to (i) methods of gene therapy for the treatment of cardiovascular disease (including methods for the delivery of genes to the heart or vasculature and the use of angiogenic and/or non-angiogenic genes for the potential treatment of diseases of the heart or vasculature); (ii) therapeutic genes that include fibroblast growth factors (including FGF-4), insulin-like growth factors (including IGF-I), and potentially other related biologics (including mutant eNOS); and (iii) other technology and know-how, including manufacturing and formulation technology, as well as data relating to the clinical development of Generx™ and corresponding FDA regulatory matters. Under the terms of the transaction, we paid Schering a \$4 million fee, and will pay a \$10 million milestone payment upon the first commercial sale of each resulting product. We also are obligated to pay the following future royalties to Schering: (i) 5% on net sales of an FGF-4 based product such as Generx, or (ii) 4% on net sales of other products developed based on technology transferred to Cardium by Schering. To date, no royalty payments have been required.



**Table of Contents****Note 9 Commitments and Contingencies**

Effective November 1, 2005, we entered into a two year lease for our principal executive offices. The lease contains two options, the first for an additional term of one year and the second for an additional term of two years. The second option is subject to a third party right of first refusal. During the first year of the lease, the monthly installment of base rent was approximately \$21,500, which increased to approximately \$22,335 in November 2006. In addition to base rent, we also are required to pay our proportionate share of operating and tax expenses for the office park in which our space is located.

As part of the acquisition of Innercool Therapies, we acquired all of the rights and assumed all of the obligations of the seller under the terms of a lease for approximately 24,000 square feet in San Diego, California, and a sublease of approximately 6,600 square feet of such facilities to an unaffiliated third party. The base monthly rent under the lease is \$25,200. The monthly base rent payable to Innercool under the terms of the sublease was approximately \$7,300. In November 2006, we entered into an amendment to the sublease in anticipation of our new technology center described below pursuant to which the subtenant agreed to sublease an additional 11,100 square feet. As a result, the monthly base rent payable to Innercool under the terms of the sublease has increased to \$20,500. The lease and the sublease both expire October 31, 2007.

On December 20, 2006, we entered into a six year lease for our technology center, which will house the operations of Innercool Therapies, Inc. and Tissue Repair Company. Under the terms of the lease, we have the option to cancel the last two years of the lease for a one time fee of \$75,000, if we give written notice of our intent to exercise such option no later than July 20, 2010, or to cancel only the last year of the lease for a one time fee of \$50,000, if we give written notice no later than September 20, 2011. During the first year of the lease, the monthly installment of base rent will average \$38,320, which amount will increase to approximately \$41,506 in the second year of the lease. In addition to base rent, we also are required to pay our proportionate share of operating and tax expenses for the office park in which our space is located. Innercool has moved into the facility with the exception of operations, which require some tenant improvement modifications. Once the required tenant improvements are completed, Innercool's operations and the Tissue Repair Company will complete their move into our technology center.

The Tissue Repair Company currently rents on a month to month basis approximately 2,700 square feet of combined office and lab space for approximately \$2,700 per month. Tissue Repair Company intends to vacate these facilities when their space in the technology center is ready.

Future annual minimum rental payments along with sub-lease income under the leases are as follows:

Year Ending December 31,	Facilities (Operating Lease)	Sub-Lease (Income)	Net
2007	939,000	(203,000)	736,000
2008	498,000		498,000
2009	516,000		516,000
2010	534,000		534,000
2011	75,000		75,000
Total	\$ 2,562,000	\$ (203,000)	\$ 2,359,000

Rent expense was \$363,685 for the year ended December 31, 2006 and \$42,953 for the year ended December 31, 2005.

The Company also has license arrangements with New York University, Yale University, University of Michigan and SurModics, Inc. which may require the Company to pay royalties of 3%-4% based on certain future sales and other milestones, as defined in the agreements.

**Employment Agreements**

In connection with the transaction described in Note 12 below, the two executive founders of Cardium entered into formal two-year employment agreements with the Company on October 20, 2005. The agreements

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provide for their combined base annual compensation of \$675,000. In the event a founder is terminated without cause, the founder shall be entitled to severance pay in an amount equal to the greater of the remaining term of the contract, or one year.

From November 2005 until March 2006, a stockholder had been providing consulting services to the Company pursuant to a Consulting Services Agreement. Under the agreement, the stockholder was paid consulting fees of \$8,333 per month. The agreement was terminated in March 2006 when the stockholder became an employee.

In connection with the Innercool transaction described in Note 3 above, the President and Chief Operating Officer of the seller was appointed as the President and Chief Operating Officer of Innercool, and entered into a three year employment agreement with Innercool effective March 8, 2006. The agreement provides for his annual base salary of \$266,000. If the officer is terminated without cause or if he terminates his employment for good reason, he will be entitled to a severance benefit in an amount equal to one year's base salary.

**Note 10 Income Taxes**

As of December 31, 2006, the Company had federal net operating loss carryforwards of approximately \$ 93,500,000 expiring in various years through 2025, portions of which may be used to offset future taxable income, if any. The Company has a deferred tax asset arising from such operating losses for which a full valuation allowance has been established due to the uncertainty as to their realizability in future periods.

The Company acquired \$71,000,000 of this federal net operating loss carryforward through the reverse merger with Aries Ventures Inc. Due to the restrictions imposed by the Internal Revenue Code of 1986, as amended, regarding substantial changes in ownership of companies with loss carryforwards, the utilization of the Company's federal net operating loss carryforwards will likely be limited as a result of cumulative changes in stock ownership.

The Company's net deferred tax assets (using a federal corporate income rate of approximately 34%) consisted of the following at December 31, 2006 and 2005:

	December 31,	
	2006	2005
Deferred tax assets:		
Operating loss carryforwards	\$ 36,093,000	\$ 28,828,000
Less: Valuation allowance	(36,093,000)	(28,828,000)
Net deferred tax assets	\$	\$

As a result of the Company's significant operating loss carryforwards and the corresponding valuation allowance, no income tax benefit has been recorded at December 31, 2006 and 2005. The provision for income taxes using the statutory federal tax rate as compared to the Company's effective tax rate is summarized as follows:

	December 31,	
	2006	2005
Tax benefit at statutory rate	(34.0)%	(34.0)%
State income taxes	(8.8)%	(8.8)%
Adjustments to change in valuation allowance	42.8%	42.8%

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### **Note 11 Stockholders Equity**

#### **Common Stock**

Cardium was incorporated in Delaware on December 22, 2003. On December 31, 2003, we sold 1,700,000 shares of our common stock to our founders and executives for \$17,000. On April 1, 2005, we issued an additional 3,800,000 shares of our common stock (of which 3,650,000 shares were issued to our co-founders and the remainder was issued to another employee of Cardium), in exchange for services and reimbursement of expenses valued at \$38,000.

On May 19, 2005, our Board of Directors and stockholders approved an increase in our authorized shares of common stock from 5,500,000 shares to 100,000,000 shares and a change in the par value of our shares of common stock from \$0.001 to \$0.0001.

On May 20, 2005, we issued 350,000 shares of our common stock to our co-founders in exchange for services and reimbursement of expenses valued at \$3,500. On July 1, 2005, we sold 2,000,000 shares of our common stock for \$20,000 to one of our founders.

On October 20, 2005, we completed a reverse merger with Aries Ventures Inc., a publicly-traded shell company, whereby a newly formed and wholly-owned subsidiary of Aries was merged with and into Cardium. At the time of the reverse merger, Cardium had 7,850,000 shares of its common stock outstanding and Aries had 2,032,226 shares of its common stock outstanding. In connection with the reverse merger, a three year warrant to purchase 400,000 shares of our common stock at an exercise price of \$1.75 per share was issued to an Aries stockholder who held of record or beneficially more than 45% of the outstanding common stock of Aries before the reverse merger, as consideration for such stockholder's agreement not to sell any of such stockholder's shares for a specified period of time.

Concurrently with the reverse merger, we closed a private placement of 19,325,651 shares of common stock at a purchase price of \$1.50 per share and received net proceeds of \$25,542,389. Investors who invested at least \$1,000,000 in shares of common stock received a three-year warrant to buy 10% of the number of shares of common stock purchased in the private placement, at an exercise price of \$1.75 per share. Warrants to purchase 424,263 shares of common stock, in the aggregate, were issued to such investors.

In October 2005, one of our executive officers was issued 41,924 shares of our common stock as repayment for advances totaling \$62,882 that had been made to fund our early start-up costs.

On March 8, 2006, as described in Note 3 above, we acquired substantially all of the assets of Innercool Therapies, Inc. As partial consideration, we issued to the seller 2,500,000 shares of our common stock.

During 2006, 108,592 shares of common stock were issued when warrants to purchase 216,554 shares of common stock were exercised in cashless transactions, whereby a portion of the respective warrants representing the right to purchase 107,962 shares of common stock, in the aggregate, was cancelled as the method of payment for the exercise of the warrants. Also, during 2006, 332,411 shares of common stock were issued upon the exercise of a warrant for which the Company received \$498,598 as payment of the exercise price. All warrants exercised in 2006 had an exercise price of \$1.50 per share.

#### **Option Activity**

We have an equity incentive plan that was established in 2005 under which 5,665,856 shares of our common stock have been reserved for issuance to employees, non-employee directors and consultants of the Company. In November 2005, options to purchase 2,095,000 shares of our common stock, in the aggregate, were granted under the plan. The options vest over three years, have a ten year term and have an exercise price of \$1.95 per share.



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During the year ended December 31, 2006, options to purchase 1,770,000 shares were granted under the plan. The options granted in 2006 have exercise prices ranging from \$1.90 to \$3.05, terms ranging from seven to ten years, and vest over approximately four years. During the year ended December 31, 2006, unvested options to purchase 295,000 shares of our common stock were cancelled and are available for future issuance under the plan. Warrants to purchase 1,734,000 shares were granted outside the plan during the year ended December 31, 2006 to employees and consultants of our wholly-owned subsidiaries. The warrants granted in 2006 outside the plan have exercise prices ranging from \$2.05 to \$3.10, vest over three to four years and have a term of seven to ten years. The fair value of the 2006 grants was \$1.15 to \$2.02 for the grants made under the plan, and \$1.15 to \$2.05 for the warrants granted outside of the plan.

The following is a summary of stock option activity under our equity incentive plan and warrants issued outside of the plan to employees and consultants, during the year ended December 31, 2006:

	Number of Options or Warrants	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value
Balance outstanding, December 31, 2005	2,095,000	\$ 1.95	8.9	
Granted	3,504,000	2.51	8.1	
Exercised				
Expired				
Cancelled	(295,000)	2.85	9.1	
Balance outstanding, December 31, 2006	5,304,000	\$ 2.27	8.4	\$ 5,993,520
Exercisable, December 31, 2006	1,069,947	\$ 2.08		

The following is a summary of unvested options and warrants as of December 31, 2006, and changes during the year ended December 31, 2006:

	Number of Options or Warrants	Weighted Average Grant Date Fair Value
Unvested balance outstanding, December 31, 2005	2,095,000	\$ 1.17
Granted	3,504,000	1.38
Vested	(1,069,947)	1.25
Expired		
Cancelled	(295,000)	1.70
Unvested balance outstanding, December 31, 2006	4,234,053	\$ 1.40

**Warrants**

Concurrently with the reverse merger in October 2005, the Company closed a private placement of 19,325,651 shares of its common stock at a purchase price of \$1.50 per share and received net proceeds of \$25,542,389. In connection therewith, National Securities Corporation, the placement agent, received a five-year warrant to purchase 2,032,555 shares of our common stock at an exercise price of \$1.50 per share. The warrant was fully exercisable when issued.

Investors who invested at least \$1,000,000 in shares of common stock also received a three-year warrant to buy 10% of the number of shares of common stock purchased at an exercise price of \$1.75 per share. Warrants to purchase 424,263 shares of common stock, in the aggregate, were

issued to such investors.

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At the closing of the reverse merger, a three-year warrant to purchase 400,000 shares of Aries Ventures common stock at an exercise price of \$1.75 per share was issued to an Aries Ventures stockholder who held of record or beneficially more than 45% of the outstanding common stock of Aries Ventures prior to the reverse merger. The warrant was issued as consideration for his agreement, subject to certain exceptions, not to sell any of his shares of Aries Ventures common stock for a period of approximately five months from the effective time of the reverse merger.

The following table summarizes warrant activity for the year ended December 31, 2006 and 2005:

	Number of Warrants	Exercise Price	Weighted Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value
Balance outstanding, December 31, 2004		\$		
Warrants issued	2,856,818	\$ 1.50-\$1.75	2-4	
Warrants exercised				
Warrants expired				
Warrants cancelled				
Balance outstanding, December 31, 2005	2,856,818	\$ 1.50-\$1.75	2-4	
Warrants issued				
Warrants exercised	(548,965)	1.50	2-4	
Warrants expired				
Warrants cancelled				
Balance outstanding, December 31, 2006	2,307,853	\$ 1.50-\$1.75	2-4	\$ 4,178,855
Warrants exercisable at December 31, 2006	2,307,853	\$ 1.50-\$1.75	2-4	

The table above summarizes investor warrant activity and warrants issued in connection with the reverse merger transaction. It does not include warrants issued to employees and consultants described and included under **Option Activity** above.

**Note 12 Reverse Merger Transaction**

On October 20, 2005, we completed a reverse merger with Aries Ventures Inc., a publicly-traded shell company, whereby a newly formed and wholly-owned subsidiary of Aries was merged with and into Cardium. For financial reporting purposes, Cardium was the acquirer in the merger and the merger was accounted for as a reverse merger. At the time of the reverse merger, Cardium had 7,850,000 shares of its common stock outstanding and Aries had 2,032,226 shares of its common stock outstanding.

Concurrently with the reverse merger, we closed a private placement of 19,325,651 shares of common stock at a purchase price of \$1.50 per share and received net proceeds of \$25,542,389. Investors who invested at least \$1,000,000 in shares of common stock received a three-year warrant to buy 10% of the number of shares of common stock purchased in the private placement, at an exercise price of \$1.75 per share. Warrants to purchase 424,263 shares of common stock, in the aggregate, were issued to such investors.

In connection with the private placement, we incurred selling commissions, marketing allowances and management fees payable to the placement agent totaling approximately \$3,049,000, and legal, accounting and

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other fees and expenses totaling approximately \$397,000. In addition, five-year warrants to purchase 2,032,555 shares of our common stock were issued to the placement agent at an exercise price of \$1.50 per share.

### **Note 13 Stockholder Rights Plan**

On July 10, 2006, Cardium's Board of Directors approved the adoption of a Stockholder Rights Plan ( Rights Plan ) with the intention to protect against potential takeover tactics that are not in the best interest of Cardium and its stockholders, such as acquisitions of control without paying all stockholders a fair premium, coercive tender offers and inadequate offers. The Rights Plan was not adopted in response to any specific effort to acquire control of Cardium and it is not intended to prevent an offer that the Board of Directors concludes is in the best interests of Cardium and its stockholders. Pursuant to the Rights Plan, Cardium issued a dividend of one right for each share of its common stock held by stockholders of record as of the close of business on July 21, 2006. The rights are not immediately exercisable and will become exercisable only upon the occurrence of certain events. In general, if a person or group acquires, or announces a tender or exchange offer that would result in the acquisition of, 15% or more of Cardium's common stock while the Rights Plan remains in place, then, unless the rights are redeemed by Cardium for \$0.001 per right, the rights will become exercisable by all rights holders, except the acquiring person or group, for 0.001 of a share of newly created Series A Preferred Stock of the Company at an exercise price of \$40.00. Until the rights become exercisable, the rights will be represented by, and will automatically trade with, the Company's common stock certificates.

The Rights Plan will be reviewed and evaluated every three years by a committee of independent directors of Cardium's Board of Directors to consider whether the plan continues to be in the best interests of Cardium and its stockholders. The Rights Plan may be amended or revoked by Cardium at any time and unless earlier terminated or amended, the rights will expire on July 10, 2016.

### **Note 14 Subsequent Events**

On March 9, 2007 we closed a private placement of 8,636,000 shares of common stock at a purchase price of \$2.50 per share and received net proceeds of approximately \$20 million. Investors received five-year warrants to buy up to 35% of the number of shares of common stock purchased in the private placement, at an exercise price of \$3.75 per share. Warrants to purchase approximately 3,022,600 shares of common stock, in the aggregate, were issued to such investors.

In connection with the private placement, we incurred selling commissions, and expenses payable to the placement agent, totaling approximately \$1,478,350, and legal, accounting and other fees and expenses totaling approximately \$100,000. In addition, a five-year warrant to purchase 518,160 shares of our common stock was issued to the placement agent at an exercise price of \$ 3.78 per share.

Also in connection with the private placement, we agreed to file a registration statement to register for resale the shares of common stock sold in the financing, including the shares of common stock underlying the warrants, within 30 days following the closing of the financing. Subject to certain exceptions, in the event the registration statement is not filed within such 30 day period or does not become effective within certain time periods, we would be required to pay each purchaser in the financing an amount in cash equal to one-thirtieth of one percent of the aggregate purchase price paid by each purchaser for each day the filing or effectiveness of the registration statement is delayed.

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

None.

**ITEM 8A. CONTROLS AND PROCEDURES**

We maintain certain disclosure controls and procedures. They are designed to help ensure that material information is: (1) gathered and communicated to our management, including our principal executive and financial officers, on a timely basis; and (2) recorded, processed, summarized, reported and filed with the SEC as required under the Securities Exchange Act of 1934, as amended.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2006. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective for their intended purpose described above. There were no changes to our internal controls during the fourth quarter ended December 31, 2006 that have materially affected, or that are reasonably likely to materially affect, our internal controls.

**ITEM 8B. OTHER INFORMATION**

None.

**Table of Contents****PART III****ITEM 9. DIRECTORS, EXECUTIVE OFFICERS, PROMOTERS AND CONTROL PERSONS; COMPLIANCE WITH SECTION 16(A) OF THE EXCHANGE ACT**

The information for this item is incorporated by reference to the sections Our Board of Directors, Our Executive Officers, Section 16(a) Beneficial Ownership Reporting Compliance, and Code of Ethics in our definitive proxy statement for our Annual Meeting of Stockholders to be held on June 6, 2007, to be filed on or before April 30, 2007.

**ITEM 10. EXECUTIVE COMPENSATION**

The information for this item is incorporated by reference to the sections Director Compensation and Executive Officer Compensation in our definitive proxy statement for our Annual Meeting of Stockholders to be held on June 6, 2007, to be filed on or before April 30, 2007.

**ITEM 11. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

The information for this item is incorporated by reference to the sections Stock Holdings of Certain Owners and Management and Securities Authorized for Issuance Under Equity Compensation Plans in our definitive proxy statement for our Annual Meeting of Stockholders to be held on June 6, 2007, to be filed on or before April 30, 2007.

**ITEM 12. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS**

The information for this item is incorporated by reference to the section Certain Relationships and Related Transactions in our definitive proxy statement for our Annual Meeting of Stockholders to be held on June 6, 2007, to be filed on or before April 30, 2007.

**ITEM 13. EXHIBITS**

The following exhibit index shows those exhibits filed with this report and those incorporated by reference:

**EXHIBIT INDEX**

<b>Exhibit Number</b>	<b>Description</b>	<b>Incorporated By Reference To</b>
2.1	Agreement and Plan of Merger dated as of October 19, 2005 and effective as of October 20, 2005, by and among Aries Ventures Inc., Aries Acquisition Corporation and Cardium Therapeutics, Inc.	Exhibit 2.1 of our Current Report on Form 8-K dated October 20, 2005, filed with the commission on October 26, 2005
2.2	Certificate of Merger of Domestic Corporation as filed with the Delaware Secretary of State on October 20, 2005	Exhibit 2.1 of our Current Report on Form 8-K dated October 20, 2005, filed with the commission on October 26, 2005
2.3	Agreement and Plan of Merger dated January 17, 2006, between Aries Ventures Inc. and Cardium Therapeutics, Inc.	Exhibit 2.4 of our Registration Statement on Form SB-2 (File No. 333-131104), filed with the commission on January 18, 2006
2.4	Certificate of Merger, as filed with the Delaware Secretary of State on January 17, 2006	Exhibit 2.5 of our Registration Statement on Form SB-2 (File No. 333-131104), filed with the commission on January 18, 2006
3(i)	Second Amended and Restated Certificate of Incorporation of Cardium Therapeutics, Inc. as filed with the Delaware Secretary	Exhibit 3(i) of our Registration Statement on Form SB-2 (File No. 333-131104), filed with the commission on January

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of State on January 13, 2006

18, 2006

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<b>Exhibit Number</b>	<b>Description</b>	<b>Incorporated By Reference To</b>
3(ii)	Amended and Restated Bylaws of Cardium Therapeutics, Inc. as adopted on January 12, 2006	Exhibit 3(ii) of our Registration Statement on Form SB-2 (File No. 333-131104), filed with the commission on January 18, 2006
3(iii)	Certificate of Designation of Series A Junior Participating Preferred Stock	Exhibit 3.2 of our Registration Statement on Form 8-A, filed with the commission on July 11, 2006
4.1	Form of Warrant issued to Lead Investors and Mark Zucker	Exhibit 4.2 of our Current Report on Form 8-K dated October 20, 2005, filed with the commission on October 26, 2005
4.2	Form of Warrant issued to employees and consultants of Innercool Therapies, Inc.	Exhibit 4.1 of our Current Report on Form 8-K dated March 8, 2006, filed with the commission on March 14, 2006
4.3	Form of Common Stock Certificate for Cardium Therapeutics, Inc.	Exhibit 4.5 of our Annual Report on Form 10-KSB for the fiscal year ended December 31, 2005, filed with the commission on March 31, 2006
4.4	Form of Rights Agreement dated as of July 10, 2006, between Cardium Therapeutics, Inc. and Computershare Trust Company, Inc., as Rights Agent	Exhibit 4.1 of our Registration Statement on Form 8-A, filed with the commission on July 11, 2006
4.5	Form of Rights Certificate	Exhibit 4.2 of our Registration Statement on Form 8-A, filed with the commission on July 11, 2006
4.6	Form of Warrant issued to purchasers in 2007 private financing	Exhibit 4.1 of our Current Report on Form 8-K dated March 6, 2007, filed with the commission on March 6, 2007
4.7	Form of Warrant issued to Oppenheimer & Co. Inc. as Placement Agent in 2007 financing	Filed herewith
10.1	Transfer, Consent to Transfer, Amendment and Assignment of License Agreement effective as of August 31, 2005, by and among New York University, Collateral Therapeutics, Inc. and Cardium Therapeutics, Inc.	Exhibit 10.1 of our Current Report on Form 8-K dated October 20, 2005, filed with the commission on October 26, 2005
10.2	Transfer, Consent to Transfer, Amendment and Assignment of License Agreement effective as of August 31, 2005, by and among Yale University, Schering Aktiengesellschaft and Cardium Therapeutics, Inc.	Exhibit 10.2 of our Current Report on Form 8-K dated October 20, 2005, filed with the commission on October 26, 2005
10.3	Transfer, Consent to Transfer, Amendment and Assignment of License Agreement effective as of July 31, 2005, by and among the Regents of the University of California, Collateral Therapeutics, Inc. and Cardium Therapeutics, Inc.	Exhibit 10.3 of our Current Report on Form 8-K dated October 20, 2005, filed with the commission on October 26, 2005



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<b>Exhibit Number</b>	<b>Description</b>	<b>Incorporated By Reference To</b>
10.4	Transfer, Consent to Transfer, Amendment and Assignment of License Agreement effective as of July 31, 2005, by and among the Regents of the University of California, Collateral Therapeutics, Inc. and Cardium Therapeutics, Inc.	Exhibit 10.4 of our Current Report on Form 8-K dated October 20, 2005, filed with the commission on October 26, 2005
10.5	Technology Transfer Agreement effective as of October 13, 2005, by and among Schering AG, Berlex, Inc., Collateral Therapeutics, Inc. and Cardium Therapeutics, Inc.	Exhibit 10.5 of Aries Current Report on Form 8-K dated October 20, 2005, filed with the commission on October 26, 2005
10.6	Amendment to the Exclusive License Agreement for Angiogenesis Gene Therapy effective as of October 20, 2005, between the Regents of the University of California and Cardium Therapeutics, Inc.	Exhibit 10.6 of our Current Report on Form 8-K dated October 20, 2005, filed with the commission on October 26, 2005
10.7	Amendment to License Agreement effective as of October 20, 2005, by and between New York University and Cardium Therapeutics, Inc.	Exhibit 10.7 of our Current Report on Form 8-K dated October 20, 2005, filed with the commission on October 26, 2005
10.8	Second Amendment to Exclusive License Agreement effective as of October 20, 2005, by and between Yale University and Cardium Therapeutics, Inc.	Exhibit 10.8 of our Current Report on Form 8-K dated October 20, 2005, filed with the commission on October 26, 2005
10.9	2005 Equity Incentive Plan as adopted effective as of October 20, 2005*	Exhibit 10.9 of our Current Report on Form 8-K dated October 20, 2005, filed with the commission on October 26, 2005
10.10	Employment Agreement dated as of October 20, 2005 by and between Aries Ventures Inc. and Christopher Reinhard*	Exhibit 10.10 of our Current Report on Form 8-K dated October 20, 2005, filed with the commission on October 26, 2005
10.11	Employment Agreement dated as of October 20, 2005 by and between Aries Ventures Inc. and Tyler Dylan*	Exhibit 10.11 of our Current Report on Form 8-K dated October 20, 2005, filed with the commission on October 26, 2005
10.12	Office Lease between Cardium and Kilroy Realty, L.P. dated as of September 30, 2005 and commencing on November 1, 2005	Exhibit 10.12 of our Annual Report on Form 10-KSB for the fiscal year ended September 30, 2005, filed with the commission on December 22, 2005
10.13	Yale Exclusive License Agreement between Yale University and Schering Aktiengesellschaft dated September 8, 2000	Exhibit 10.13 of our Annual Report on Form 10-KSB for the fiscal year ended September 30, 2005, filed with the commission on December 22, 2005
10.14	Research and License Agreement between New York University and Collateral Therapeutics, Inc. dated March 24, 1997 (with amendments dated April 28, 1998 and March 24, 2000)	Exhibit 10.14 of our Annual Report on Form 10-KSB for the fiscal year ended September 30, 2005, filed with the commission on December 22, 2005

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<b>Exhibit Number</b>	<b>Description</b>	<b>Incorporated By Reference To</b>
10.15	Exclusive License Agreement for Angiogenesis Gene Therapy between the Regents of the University of California and Collateral Therapeutics, Inc. dated as of September 27, 1995 (with amendments dated September 19, 1996, June 30, 1997, March 11, 1999 and February 8, 2000)	Exhibit 10.15 of our Annual Report on Form 10-KSB for the fiscal year ended September 30, 2005, filed with the commission on December 22, 2005
10.16	Placement Agency Agreement dated July 1, 2005 by and between Cardium Therapeutics, Inc. and National Securities Corporation	Exhibit 1.1 of our Current Report on Form 8-K dated October 20, 2005, filed with the commission on October 26, 2005
10.17	Asset Purchase Agreement dated as of March 8, 2006, by and among Cardium Therapeutics, Inc., Innercool Therapies, Inc. (a Delaware corporation), and Innercool Therapies, Inc. (a California corporation) (without schedules)	Exhibit 10.1 of our Current Report on Form 8-K dated March 8, 2006, filed with the commission on March 14, 2006
10.18	Production Service Agreement effective as of January 24, 2006, by and between Molecular Medicine Bioservices, Inc. and Cardium Therapeutics, Inc.	Exhibit 10.18 of our Annual Report on Form 10-KSB for the fiscal year ended December 31, 2005, filed with the commission on March 31, 2006
10.19	Executive Employment Agreement dated March 8, 2006 by and between Innercool Therapies, Inc. and Michael Magers*	Exhibit 10.19 of our Annual Report on Form 10-KSB for the fiscal year ended December 31, 2005, filed with the commission on March 31, 2006
10.20	Master License Agreement effective as of December 1, 1999, by and between SurModics, Inc. and Innercool Therapies, Inc.	Exhibit 10.20 of our Annual Report on Form 10-KSB for the fiscal year ended December 31, 2005, filed with the commission on March 31, 2006
10.21	Lease dated August 12, 1997, by and between R.G. Harris Co., and Elizabeth G. Harris, Henry K. Workman and Don C. Sherwood, Trustees of the Harris Family Revocable Trust (as landlord) and Copper Mountain Networks, Inc. (as tenant)	Exhibit 10.21 of our Annual Report on Form 10-KSB for the fiscal year ended December 31, 2005, filed with the commission on March 31, 2006
10.22	Lease Amendment No. 1 effective as of August 1, 1999, by and among R.G. Harris Co., and Elizabeth G. Harris, Henry K. Workman and Don C. Sherwood, Trustees of the Harris Family Revocable Trust (as landlord), Copper Mountain Networks, Inc. (as tenant), and Neurothermia, Inc. (as assignee)	Exhibit 10.22 of our Annual Report on Form 10-KSB for the fiscal year ended December 31, 2005, filed with the commission on March 31, 2006
10.23	Assignment, Assumption and Consent effective as of October 2, 1999, by and among Copper Mountain Networks, Inc., Neurothermia, Inc., and R.G. Harris Co., and Elizabeth G. Harris, Henry K. Workman and Don C. Sherwood, Trustees of the Harris Family Revocable Trust	Exhibit 10.23 of our Annual Report on Form 10-KSB for the fiscal year ended December 31, 2005, filed with the commission on March 31, 2006

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<b>Exhibit Number</b>	<b>Description</b>	<b>Incorporated By Reference To</b>
10.24	Lease Amendment No. 2 effective as of October 16, 2002, by and between E.G. Sirrah, LLC, as successor-in-interest to R.G. Harris Co., and Elizabeth G. Harris, Henry K. Workman and Don C. Sherwood, Trustees of the Harris Family Revocable Trust, and Innercool Therapies, Inc. (formerly known as Neurothermia, Inc.)	Exhibit 10.24 of our Annual Report on Form 10-KSB for the fiscal year ended December 31, 2005, filed with the commission on March 31, 2006
10.25	Sublease dated August 30, 2005, by and between Innercool Therapies, Inc., and Acadia Pharmaceuticals Inc.	Exhibit 10.25 of our Annual Report on Form 10-KSB for the fiscal year ended December 31, 2005, filed with the commission on March 31, 2006
10.26	Asset Purchase Agreement dated as of August 11, 2006, by and among Cardium Therapeutics, Inc., Cardium Biologics, Inc. (a Delaware corporation), and Tissue Repair Company (a Delaware corporation)	Exhibit 10.26 of our Current Report on Form 8-K dated August 11, 2006, filed with the commission on August 15, 2006
10.27	Form of Securities Purchase Agreement, dated March 6, 2007, by and between Cardium Therapeutics, Inc. and each purchaser in 2007 private financing (agreements on substantially this form were signed by each purchaser in the financing)	Exhibit 10.1 of our Current Report on Form 8-K dated March 6, 2007, filed with the commission on March 6, 2007
10.28	Form of Lock-Up Agreement executed by each executive officer and director of Cardium Therapeutics, Inc. in connection with 2007 private financing	Exhibit 10.2 of our Current Report on Form 8-K dated March 6, 2007, filed with the commission on March 6, 2007
10.29	Placement Agent Agreement dated November 1, 2006, by and between Cardium Therapeutics, Inc. and Oppenheimer & Co. Inc.	Exhibit 10.3 of our Current Report on Form 8-K dated March 6, 2007, filed with the commission on March 6, 2007
10.30	Office Lease dated as of September 16, 2006 and commencing on January 20, 2007, by and between Cardium Therapeutics, Inc. and Jaguar Properties, L.L.C.	Filed herewith
10.31	Amendment 1 effective on October 31, 2006, to Sublease dated August 30, 2005, by and between Innercool Therapies, Inc., and Acadia Pharmaceuticals Inc.	Filed herewith
10.32	Amendment 2 effective as of January 2, 2007, to Sublease dated August 30, 2005, by and between Innercool Therapies, Inc., and Acadia Pharmaceuticals Inc.	Filed herewith
10.33	Michigan License agreement between the Regents of the University of Michigan and Matrigen, Inc. dated July 13, 1995	Filed herewith

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<b>Exhibit Number</b>	<b>Description</b>	<b>Incorporated By Reference To</b>
10.34	Amendment to License agreement between the Regents of University of Michigan and Matrigen, Inc. dated August 10, 1995	Filed herewith
10.35	Second Amendment to the Michigan License agreement between the Regents of the University of Michigan and Selective Genetics, Inc. dated February 1, 2004	Filed herewith
10.36	Third Amendment to Michigan License Agreement between the Regents of the University of Michigan and, Tissue Repair Company, and Cardium Biologics Inc. dated August 10, 2006	Filed herewith
21	Subsidiaries of Cardium Therapeutics, Inc.	Filed herewith
23.1	Consent of Marcum & Kliegman LLP	Filed herewith
31.1	Rule 13a-14(a)/15d-14(a) Certification of Chief Executive Officer	Filed herewith
31.2	Rule 13a-14(a)/15d-14(a) Certification of Chief Financial Officer	Filed herewith
32	Section 1350 Certification	Filed herewith

\* Indicates management contract or compensatory plan or arrangement.

**ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The information for this item is incorporated by reference to the sections Audit Fees, Audit-Related Fees, Tax Fees, All Other Fees and Pre-Approval Policies and Procedures in our definitive proxy statement for our Annual Meeting of Stockholders to be held on June 6, 2007, to be filed on or before April 30, 2007.

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**SIGNATURES**

In accordance with Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, Cardium Therapeutics, Inc., the registrant, caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: March 14, 2007

CARDIUM THERAPEUTICS, INC.

By: /s/ CHRISTOPHER J. REINHARD  
**Christopher J. Reinhard,**

**Chief Executive Officer**

In accordance with the Securities Exchange Act of 1934, as amended, this report has been signed below by the following persons on behalf of Cardium Therapeutics, Inc., in the capacities and on the dates indicated.

Signature	Title	Date
/s/ CHRISTOPHER J. REINHARD	Chief Executive Officer and Chairman of the Board of Directors (principal executive officer)	March 14, 2007
<b>(Christopher J. Reinhard)</b>		
/s/ DENNIS M. MULROY	Chief Financial Officer (principal financial officer and principal accounting officer)	March 14, 2007
<b>(Dennis M. Mulroy)</b>		
/s/ TYLER M. DYLAN	Director	March 14, 2007
<b>(Tyler M. Dylan)</b>		
/s/ EDWARD WILLIAM GABRIELSON	Director	March 14, 2007
<b>(Edward William Gabrielson)</b>		
/s/ MURRAY HUNTER HUTCHISON	Director	March 14, 2007
<b>(Murray Hunter Hutchison)</b>		
/s/ GERALD J. LEWIS	Director	March 14, 2007

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**(Gerald J. Lewis)**

/s/ LON EDWARD OTREMB

Director

March 14, 2007

**(Lon Edward Otremba)**

/s/ RONALD I. SIMON

Director

March 14, 2007

**(Ronald I. Simon)**

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