

Cardium Therapeutics, Inc.
Form 424B5
September 29, 2010
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Filed Pursuant to Rule 424(b)(5)
File No. 333-168693

PROSPECTUS SUPPLEMENT

To Prospectus dated August 27, 2010

\$5,000,000

Common Stock

We have entered into a sales agreement with Brinson Patrick Securities Corporation, as sales manager, relating to the sale of up to \$5.0 million of shares of our common stock, par value \$0.0001 per share, to take place in at the market offering(s) as defined in Rule 415 of the Securities Act, pursuant to this prospectus supplement and the accompanying prospectus.

The sales manager will use its best efforts to sell the shares offered by this prospectus supplement, when and if we ask them to do so pursuant to instructions that we may provide from time to time. The sales manager is not required to sell any pre-specified number or dollar amount of shares during any specific time period under the sales agreement. The sales agreement relates only to sales of our common stock and does not cover the issuance of warrants, preferred stock, debentures or units. Sales of our common stock, if any, will be made on our behalf on or through national securities exchanges (such as NYSE Amex) and/or alternative trading systems, and/or in any other manner permitted by law (including, without limitation, privately negotiated transactions) at prices prevailing at the time of sale. There are no arrangements to place the proceeds of the offering in an escrow account. This offering will continue until the termination of our sales agreement with Brinson Patrick.

The sales manager will receive compensation for sales of our common stock at a fixed commission rate of 4.5% of the gross sales price per share sold, and is not entitled to receive payment of any other form of compensation including but not limited to the issuance of shares of common stock or any stock purchase warrants, stock options or any other future right to relating to the purchase of our common stock. The sales agreement may be terminated by us or by Brinson Patrick upon written notice and in certain other circumstances specified in the sales agreement.

Our common stock is traded on the NYSE Amex under the symbol CXM . On September 28, 2010, the closing sale price of our common stock was \$0.62 per share.

The aggregate market value of our outstanding common stock held by non-affiliates is \$43,546,936 based on 77,852,154 shares of outstanding common stock of which 70,236,994 are held by non-affiliates, at a price of \$0.62 per share based on the closing sale price of our common stock on September 28, 2010. As of the date of this prospectus supplement we have not offered any securities during the past 12 months pursuant to General Instruction I.B.6 of Form S-3.

Investing in our common stock involves risks. Before investing in our common stock you should carefully consider the risk factors described in Risk Factors in this prospectus supplement beginning on page S-4, and in other documents incorporated by reference, including our Annual Report on Form 10-K for our fiscal year ended December 31, 2009.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this supplement or the accompanying prospectus. Any representation to the contrary is a

criminal offense.

We urge you to carefully read this prospectus supplement and the accompanying prospectus which will describe the terms of the offering before you make your investment decision.

The date of this prospectus supplement is September 29, 2010.

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In making your investment decision, you should rely only on the information contained in or incorporated by reference in this prospectus supplement and in the accompanying prospectus. Neither Cardium Therapeutics nor the sales manager has authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. Neither Cardium Therapeutics nor the sales manager is making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted.

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ABOUT THIS PROSPECTUS SUPPLEMENT

Unless otherwise stated or the context otherwise requires, references in this prospectus supplement or the accompanying prospectus to Cardium, we, our, us or similar references are to Cardium Therapeutics, Inc. and its consolidated subsidiaries.

This document consists of two parts. The first part is this prospectus supplement, which describes the specific terms of this offering and other matters relating to us. The second part is the accompanying prospectus, which gives more general information about securities we may offer from time to time, some of which may not apply to this offering. This prospectus supplement and the accompanying prospectus are part of a shelf registration statement that we filed with the Securities and Exchange Commission (or the SEC) using the SEC's shelf registration rules.

You should read both this prospectus supplement and the accompanying prospectus together with additional information described in this prospectus supplement in the section titled Where You Can Find More Information. If there is any inconsistency between the information in this prospectus supplement and the accompanying prospectus, you should rely on the information contained in this prospectus supplement.

Any statement made in this prospectus supplement, in the accompanying prospectus or in any document incorporated or deemed to be incorporated by reference in this prospectus supplement or the accompanying prospectus will be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained in this prospectus supplement or in any other subsequently filed document that is also incorporated or deemed to be incorporated by reference in this prospectus supplement or the accompanying prospectus modifies or supersedes that statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement or the accompanying prospectus.

The information in this prospectus supplement is accurate as of the date on the front cover. You should not assume that the information contained in this prospectus supplement or in the accompanying prospectus is accurate as of any date other than the date on the front of the applicable document, or that information incorporated by reference is accurate as of any date other than the date of the document incorporated by reference. Our business, financial condition, results of operations and prospects or other important facts or circumstances may have changed since those dates.

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FORWARD-LOOKING STATEMENTS

Certain statements in this prospectus, including information incorporated by reference, are forward-looking statements within the meaning of Section 27A of the 33 Act, Section 21E of the Securities Exchange Act of 1934, as amended (or the Exchange Act), 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, approximates, predicts, or 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, are forward-looking statements.

The forward-looking statements in this prospectus speak only as of the date of this prospectus 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-looking statements, you should carefully review the risks, uncertainties and other cautionary statements in this prospectus 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 Risk Factors and elsewhere in this prospectus, as well as in other reports and documents we file with the SEC.

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THE OFFERING

| | |
|---|---|
| Issuer: | Cardium Therapeutics, Inc. |
| Securities Offered: | Up to \$5,000,000 of shares of common stock, \$0.0001 par value. |
| Number of shares of common stock to be outstanding immediately following this offering ⁽¹⁾ : | 85,916,670 shares, assuming all of the shares offered by this prospectus supplement are sold. Actual shares issued will vary depending on the sales price under this offering. |
| Manner of Offering: | Best efforts at-the-market offering that may be made from time to time through our agent, Brinson Patrick Securities Corporation. See Plan of Distribution on page S-5. |
| Use of Proceeds: | We expect to use the net proceeds from this offering for general corporate purposes, which may include the development and commercialization of our product candidates, and the acquisitions of businesses, products, technologies or licenses that are complementary to our business. See Use of Proceeds on page S-5. |
| Risk Factors: | Investing in our common stock involves risks. See the section titled Risk Factors beginning on page S-4 of this prospectus supplement and in the documents incorporated by reference herein for a discussion of factors you should carefully consider before deciding to invest in our common stock. |
| NYSE Amex Symbol: | CXM |

(1) The number of shares of our common stock to be outstanding immediately after this offering is based on 77,852,154 shares of our common stock outstanding as of September 28, 2010. That number does not include the shares issuable upon exercise or conversion of the following derivative securities outstanding on that date: (i) up to 38,868,622 shares of common stock issuable upon exercise of warrants, which are exercisable at prices ranging from \$0.50 to \$3.78 per share; (ii) 3,555,000 shares of common stock issuable upon exercise of options and employee warrants, of which approximately 2,885,232 shares are exercisable; and (iii) 2,491,169 shares of common stock available for future grants under our stock option plans.

Our principal executive offices are located at 12255 El Camino Real, Suite 250, San Diego, California 92130, and our telephone number is (858) 436-1000. Our website is located at www.cardiumthx.com. Information on our website is not part of this prospectus.

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RISK FACTORS

Your investment in our shares of common stock is subject to certain risks. This prospectus supplement does not describe all of those risks. You should consult your own financial and legal advisors about the risks entailed by an investment in our shares of common stock and the suitability of your investment in our shares of common stock in light of your particular circumstances. For a discussion of some of the factors you should carefully consider before deciding to purchase any of our shares of common stock that may be offered, please read "Risk Factors" in the documents incorporated by reference herein, as well as those risk factors included below. Additional risks and uncertainties not currently known to us or that we currently deem immaterial may also adversely affect our business and operations. If any of the matters described in the risk factors were to occur, our business, financial condition, results of operations, cash flows or prospects could be materially adversely affected. In such case, you could lose all or a portion of your investment.

Risks Related to the Offering

You may experience immediate dilution in the book value per share of the common stock you purchase.

Because the price per share of our common stock being offered from time to time may be substantially higher than the book value per share of our common stock at the time of the sale, you may suffer substantial dilution in the net tangible book value of the common stock you purchase in this offering. See the section entitled "Dilution" below for a more detailed discussion of the dilution you will incur if you purchase common stock in this offering.

Our management will have broad discretion over the use of proceeds from this offering and may not use the proceeds effectively.

Our management will have broad discretion as to the application of the net proceeds from this offering and could spend the proceeds in a variety of ways that may ultimately fail to improve our operating results or enhance the value of our common stock. Our failure to apply these funds effectively could have a negative effect on our business and cause the price of our common stock to decline.

Our publicly filed reports are subject to review by the SEC, and any significant changes or amendments required as a result of any such review may result in material liability to us and may have a material adverse impact on the trading price of our common stock.

The reports of publicly traded companies are subject to review by the SEC from time to time for the purpose of assisting companies in complying with applicable disclosure requirements, and the SEC is required to undertake a comprehensive review of a company's reports at least once every three years under the Sarbanes-Oxley Act of 2002. SEC reviews may be initiated at any time. We could be required to modify, amend or reformulate information contained in prior filings as a result of an SEC review. Any modification, amendment or reformulation of information contained in such reports could be significant and result in material liability to us and have a material adverse impact on the trading price of our common stock.

Additional Risks Related to our Business, Industry and an Investment in our Common Stock

For a discussion of additional risks associated with our business, our industry and an investment in our common stock, see the section entitled "Risk Factors" in our most recent Annual Report on Form 10-K, as filed with the SEC on March 16, 2010 and any other subsequently filed document that is also incorporated or deemed to be incorporated by reference in this prospectus supplement.

Table of Contents**USE OF PROCEEDS**

We intend to use the net proceeds from the sale of securities offered in this prospectus supplement for general corporate purposes, which may include the development and commercialization of our product candidates and the acquisitions of businesses, products, technologies or licenses that are complementary to our business. Although we have no specific agreements, commitments or understandings with respect to any acquisition, we evaluate acquisitions opportunities and we engage in related discussions with other companies from time to time and we may use a portion of the proceeds from this offering in connection with one or more such acquisitions.

DILUTION

If you invest in our common stock, your interest will be diluted by an amount equal to the difference between the public offering price and the net tangible book value per share of common stock after this offering.

We calculate net tangible book value per share by dividing our net tangible book value (total assets less intangible assets and total liabilities) by the number of outstanding shares of common stock. Our net tangible book value at June 30, 2010 was \$7,580,252, or \$0.10 per share of common stock. After giving effect to the sale of \$5,000,000 of shares of common stock in this offering at an assumed price of \$0.62 per share, and our receipt of the net proceeds from the sale of those shares, our net tangible book value at June 30, 2010 would have been \$12,355,252, or \$0.14 per share. This represents an immediate increase in pro forma net tangible book value of \$0.04 per share to existing shareholders and an immediate and substantial dilution of \$0.48 per share to new investors. The following table illustrates this per share dilution:

| | | |
|---|---------|---------|
| Assumed public offering price per share | | \$ 0.62 |
| Pro forma net tangible book value (deficit) per share at June 30, 2010 | \$ 0.10 | |
| Increase in net tangible book value per share attributable to offering | \$ 0.04 | |
| Pro forma net tangible book value per share at June 30, 2010, after giving effect to the offering | | \$ 0.14 |
| Dilution per share to new investors in the offering | | \$ 0.48 |

The foregoing dilution discussion assumes that all \$5,000,000 of shares of our common stock offered by this prospectus supplement are sold at a price of \$0.62 per share, the last reported sales price of our common stock on the NYSE Amex on September 28, 2010. This is an offering that will be made, if at all, from time to time at the then-prevailing market prices. Therefore, the number of shares we sell may be more or less than the number of shares illustrated above and the public offering price may be more or less than \$0.62 per share.

PLAN OF DISTRIBUTION

We may sell up to \$5,000,000 of shares of our common stock from time to time through Brinson Patrick Securities Corporation, as sales manager. Sales of our common stock, if any, will be made on our behalf on or through national securities exchanges and/or alternative trading systems, and/or in any other manner permitted by law (including, without limitation, privately negotiated transactions) at prices prevailing at the time of sale.

A copy of the sales agreement specifying the terms and conditions under which the sales manager will act as our agent will be filed with the SEC. The compensation to the sales manager for sales of our common stock shall be at a fixed commission rate of 4.5% of the gross sales price per share sold. The following table shows the public offering price, underwriting commissions and proceeds, before expenses, to us, assuming all \$5,000,000

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of shares of our common stock are sold at \$0.62 per share, the last reported sales price of our common stock on the NYSE Amex on September 28, 2010. The expenses of the offering, not including sales manager fees, are estimated at \$100,000, include certain fees and disbursements of sales manager's counsel, and are payable by us.

| | Public Offering Price⁽¹⁾ | Sales Manager's Fees | Proceeds, Before Expenses, to Cardium Therapeutics |
|-----------|--|-------------------------------------|---|
| Per Share | \$ 0.62 | \$ 0.0279 | \$ 0.5921 |
| Total | \$ 5,000,000 | \$ 225,000 | \$ 4,775,000 |

(1) This is an offering that will be made, if at all, from time to time at the then-prevailing market prices. Therefore, there can be no assurances that the public offering price will be as set forth above.

We will open and maintain a trading account at the clearing agent designated by sales manager to facilitate the transactions contemplated by the sales agreement. The net proceeds from the sale of shares of our common stock will be available in the trading account on the third business day (or such other day as is industry practice for regular-way trading) following each sale of the common stock (each, a settlement date). We will effect the delivery of the applicable number of shares of common stock to an account designated by the sales manager at The Depository Trust Company on or before the settlement date of each sale hereunder. The sales manager's compensation shall be withheld from the sales proceeds on each settlement date and shall be paid to Brinson Patrick.

We have agreed to provide indemnification and contribution to Brinson Patrick against certain liabilities, including liabilities under the Securities Act.

All sales made pursuant to the sales agreement will be reported in our filings with the SEC pursuant to the Securities Exchange Act.

We or Brinson Patrick may suspend the offering of shares of common stock under or terminate the sales agreement upon proper notice and subject to other conditions as set forth under the sales agreement. The offering of common stock pursuant to the sales agreement will terminate upon the termination of the sales agreement. The sales agreement may be terminated by us or by Brinson Patrick upon written notice and in certain other circumstances specified therein.

We may enter into other sales agreements with other sales agents or underwriters in the future. We may sell our common stock from time to time (1) through arrangements with underwriters or dealers, (2) directly to one or more purchasers, or (3) through agents.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file with the SEC (including exhibits to such documents) at the SEC's Public Reference Room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You may obtain additional information about the Public Reference Room by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains a site on the Internet at <http://www.sec.gov/> that contains reports, proxy statements and other information that we file electronically with the SEC.

This prospectus supplement and accompanying prospectus are part of a registration statement that we filed with the SEC. This prospectus supplement does not contain all of the information contained in the registration statement, including the exhibits to the registration statement. You can obtain a copy of the registration statement from the SEC at the address listed above or from the SEC's web site.

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INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

We are incorporating by reference information into this prospectus supplement. This means that we are disclosing important information to you by referring you to another document that has been filed separately with the SEC. The information incorporated by reference is considered to be part of this prospectus supplement, and information that we file later with the SEC will automatically update and supersede the information contained in documents filed earlier with the SEC or contained in this prospectus supplement. We incorporate by reference in this prospectus supplement the documents listed below and any future filings made by us with the SEC under Section 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934 after the initial filing of this prospectus supplement and prior to the time that we sell all of the securities offered by this prospectus supplement and the accompanying prospectus (except in each case the information contained in such documents to the extent furnished and not filed):

Our Annual Report on Form 10-K for the fiscal year ended December 31, 2009, filed with the SEC on March 16, 2010;

Our Quarterly Reports on Form 10-Q for the fiscal quarter ended March 31, 2010, filed with the SEC on May 10, 2010, and for the fiscal quarter ended June 30, 2010, filed with the SEC on August 9, 2010;

Our Current Reports on Form 8-K, filed with the SEC on January 4, 2010, February 18, 2010, March 15, 2010, June 7, 2010, June 11, 2010, June 24, 2010, July 12, 2010 and September 20, 2010;

Our Definitive Proxy Statement on Schedule 14A, filed with the SEC on April 28, 2010; and

The description of our common stock contained in our Registration Statement on Form 8-A, filed with the SEC on August 1, 2007, including all amendments or reports filed for the purpose of updating such description.

You may obtain copies, without charge, of documents incorporated by reference in this prospectus supplement, by requesting them in writing or by telephone from us as follows:

Dennis M. Mulroy, Chief Financial Officer

Cardium Therapeutics, Inc.

12255 El Camino Real, Suite 250

San Diego, California 92130

(858) 436-1000

Exhibits to the filings will not be sent, unless those exhibits have been specifically incorporated by reference in this prospectus supplement.

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\$50,000,000

Common Stock

Preferred Stock

Debt Securities

Warrants

Units

We may offer under this prospectus from time to time, at prices and on terms to be determined at or prior to the time of the offering, up to \$50,000,000 of any combination of the securities described in this prospectus, either individually or in units. We may also offer common stock or preferred stock upon conversion of the debt securities, common stock upon conversion of the preferred stock, or common stock, preferred stock or debt securities upon the exercise of warrants. We will provide you with specific terms of any offering in one or more supplements to this prospectus. You should read this prospectus and any prospectus supplement, as well as any documents incorporated by reference into this prospectus or any prospectus supplement, carefully before you invest.

The aggregate market value of our outstanding common stock held by non-affiliates is \$31,606,647, based on 77,852,154 shares of outstanding common stock, of which 70,236,994 shares are held by non-affiliates, at a per share price of \$0.45 based on the average of the closing sale price of our common stock on August 20, 2010. As of the date of this prospectus, we have not offered any securities during the past twelve months pursuant to General Instruction I.B.6 of Form S-3.

Our common stock is traded on the NYSE Amex under the symbol **CXM**. On August 20, 2010, the closing sale price of our common stock was \$0.45 per share. You are urged to obtain current market quotations for the common stock. Prospective purchasers of our securities are urged to obtain current information as to the market prices of our securities, where applicable.

Investing in our securities involves a high degree of risk. Before deciding whether to invest in our securities, you should consider carefully the risks that we have described in this prospectus under the caption Risk Factors starting on page 8. We may include specific risk factors in supplements to this prospectus under the caption **Risk Factors. This prospectus may not be used to offer or sell our securities unless accompanied by a prospectus supplement.**

Our securities may be sold directly by us to investors, through agents designated from time to time or to or through underwriters or dealers. For additional information on the methods of sale, you should refer to the section entitled **Plan of Distribution** in this prospectus. If any underwriters are involved in the sale of our securities with respect to which this prospectus is being delivered, the names of such underwriters and any applicable commissions or discounts and over-allotment options will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds that we expect to receive from such sale will also be set forth in a prospectus supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is August 27, 2010

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, utilizing a shelf registration process. Under this shelf registration process, we may offer shares of our common stock and preferred stock, various series of debt securities and/or warrants to purchase any of such securities, either individually or in units, in one or more offerings, with a total value of up to \$50,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering.

This prospectus does not contain all of the information included in the registration statement. For a more complete understanding of the offering of the securities, you should refer to the registration statement, including its exhibits. The prospectus supplement may also add, update or change information contained or incorporated by reference in this prospectus. However, no prospectus supplement will fundamentally change the terms that are set forth in this prospectus or offer a security that is not registered and described in this prospectus at the time of its effectiveness. This prospectus, together with the applicable prospectus supplements and the documents incorporated by reference into this prospectus, includes all material information relating to this offering. **You should carefully read this prospectus, the applicable prospectus supplement, the information and documents incorporated herein by reference and the additional information under the heading *Where You Can Find More Information* before making an investment decision.**

You should rely only on the information we have provided or incorporated by reference in this prospectus or any prospectus supplement. We have not authorized anyone to provide you with information different from that contained or incorporated by reference in this prospectus. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained or incorporated by reference in this prospectus. You must not rely on any unauthorized information or representation. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this prospectus or any prospectus supplement is accurate only as of the date on the front of the document and that any information we have incorporated herein by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any sale of a security.

This prospectus may not be used to consummate sales of our securities, unless it is accompanied by a prospectus supplement. To the extent there are inconsistencies between any prospectus supplement, this prospectus and any documents incorporated by reference, the document with the most recent date will control.

References to Cardium, we, us or our refer to Cardium Therapeutics, Inc.

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SPECIAL NOTE ABOUT FORWARD-LOOKING STATEMENTS

Certain statements in this prospectus, including information incorporated by reference, are forward-looking statements within the meaning of Section 27A of the 33 Act, Section 21E of the Securities Exchange Act of 1934, as amended (Exchange Act), 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, approximates, predicts, or 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, are forward-looking statements.

The forward-looking statements in this prospectus speak only as of the date of this prospectus 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-looking statements, you should carefully review the risks, uncertainties and other cautionary statements in this prospectus 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 Risk Factors and elsewhere in this prospectus, as well as in other reports and documents we file with the SEC.

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PROSPECTUS SUMMARY

This summary highlights certain information about Cardium and its business. This summary does not contain all of the information that is important to an investment decision. You should carefully read the entire prospectus and any prospectus supplement, including Risk Factors beginning below on page 7, before deciding to invest in our common stock.

Our Business

We were organized in Delaware in December 2003. Our business is focused on the acquisition and strategic development of product opportunities or businesses having the potential to address significant unmet medical needs, and definable pathways to commercialization, partnering or other monetization following the achievement of corresponding development objectives.

In October 2005, we acquired a portfolio of biologic growth factors and related delivery techniques from the Schering AG Group (now part of Bayer AG) for potential use in treating ischemic and other cardiovascular conditions, including Generx™, a product candidate being developed for patients with chronic myocardial ischemia (insufficient blood flow within the heart muscle) due to coronary heart disease.

In August 2006, we acquired rights to the assets and technologies of Tissue Repair Company, a company focused on the development of therapeutics for the potential treatment of chronic wounds and other tissue injuries. Tissue Repair Company's Excellagen™ and Excellerate™ product candidates are initially being developed for the potential treatment of chronically non-healing diabetic foot ulcers. Tissue Repair Company is operated as a wholly-owned subsidiary of Cardium.

Our business model is designed to create multiple opportunities for success while avoiding reliance on any single technology platform or product type, and to leverage Cardium's skills in late-stage product development in order to bridge the critical gap between promising new technologies and product opportunities that are ready for commercialization. Consistent with our long-term strategy, we intend to consider various corporate development transactions designed to place our product candidates into larger organizations or with partners having existing commercialization, sales and marketing resources, and a need for innovative products. Such transactions could involve the sale, partnering or other monetization of particular product opportunities or businesses. In parallel, as our businesses are advanced and corresponding valuations established, we plan to pursue new product opportunities and acquisitions with strong value enhancement potential.

Cardium Biologics

The lead product candidate from our Cardium Biologics unit is Generx (alferminogene tadenovec, Ad5FGF-4), which is being developed as a potential treatment for myocardial ischemia (insufficient blood flow within the heart muscle) due to coronary heart disease. Generx represents a new therapeutic class of cardiovascular biologics designed to promote collateral angiogenesis, a natural process of blood vessel growth within the heart muscle, to increase blood supply to ischemic areas of the heart following a one-time intracoronary administration.

The FDA has cleared Generx for a Phase 3 clinical study in the U.S. for women with late stage coronary artery disease who are unresponsive to traditional drug therapy and are not appropriate candidates for mechanical revascularization (angioplasty/stents or by-pass surgery). However, in view of published results from an independent 10-year study among men and women with chronic coronary heart disease showing that improved collateral circulation was associated with substantially lower cardiac mortality (Circulation 116:975-983, 2007),

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and prior studies showing that a one-time infusion of Generx has the potential to achieve improved coronary collateral circulation in both men and women at levels approximately equivalent to bypass surgery as measured by SPECT imaging (Journal of American College of Cardiology 42(8):1339-1347, 2003), we believe that Generx could potentially be developed as a cost effective front-line therapy for patients with coronary artery disease in the large markets of newly-industrializing countries who often do not have access to costly procedures such as bypass surgery. We also believe that having such additional clinical evidence confirming the safety and effectiveness of Generx for improving coronary collateral circulation in men and women with severe coronary artery disease could potentially be used to optimize and broaden commercial development pathways in the U.S. and other industrialized countries.

Tissue Repair Company

Our Tissue Repair Company subsidiary is focused on the development of therapeutics and devices for the potential treatment of chronic wounds such as non-healing diabetic ulcers and other wounds, as well as the repair of other tissues, including both hard tissue injuries such as bone fracture, as well as soft tissue injuries affecting ligaments, tendons or cartilage.

On December 3, 2009 our Tissue Repair Company subsidiary filed a 510(k) premarket notification filing with the U.S. Food and Drug Administration (FDA) for its fibrillar collagen-based Excellagen topical gel for wound healing of diabetic foot ulcers and potentially other wounds. Our 510(k) filing covers ExcellagenXL and ExcellagenFXSM, advanced wound care management medical devices comprising customized protein-based gels designed for topical application by health care professionals for patients with dermal wounds, which can include diabetic ulcers, pressure ulcers, venous ulcers, tunneled/undermined wounds, surgical and trauma wounds, second degree burns, and other types of wounds. The 510(k) submission is based in part on positive findings from our Phase 2b Matrix clinical study, reported on October 14, 2009, demonstrating substantial improvements in wound healing responses in patients with non-healing diabetic foot ulcers following one or two applications of Excellagen, an enhanced, customized collagen-based gel matrix. ExcellagenXL is designed for use by health care professionals in a clinical setting and as an adjunct to standard of care topical wound therapy, which in the case of diabetic ulcers typically includes surgical debridement and off-loading. The ExcellagenFX kit is designed for use by health care providers in a clinical setting in the treatment of larger soft tissue or tunneling wounds that may occur with pressure, venous and diabetic ulcers, as well as surgical wounds. The ExcellagenFX flowable matrix product allows for deeper administration and direct intimate contact with the wound bed in these more complex, irregular and difficult to access wounds.

For Tissue Repair Company's Excellerate product candidate, which comprises a mixture of our collagen-based gel with a biologic encoding a stimulatory growth factor (PDGF-B), we plan to introduce a combined formulation that allows for longer term stability without the need to maintain the biologic separately at -70 degrees centigrade, and to introduce the easier to use single-syringe product candidate into clinical studies designed to further evaluate the safety and effectiveness of Excellerate, and to allow for repeat dosing of Excellerate for wounds that are responding to treatment but have not yet achieved complete closure.

Corporate Information

Our principal executive offices are located at 12255 El Camino Real, Suite 250, San Diego, California 92130, and our telephone number is (858) 436-1000. Our website is located at www.cardiumthx.com. Information on our website is not part of this prospectus.

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Offerings Under This Prospectus

Under this prospectus, we may offer shares of our common stock and preferred stock, various series of debt securities and/or warrants to purchase any of such securities, either individually or in units, with a total value of up to \$50,000,000, from time to time at prices and on terms to be determined by market conditions at the time of offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

designation or classification;

aggregate principal amount or aggregate offering price;

maturity, if applicable;

rates and times of payment of interest or dividends, if any;

redemption, conversion or sinking fund terms, if any;

voting or other rights, if any;

conversion prices, if any; and

important United States federal income tax considerations.

The prospectus supplement also may add, update or change information contained in this prospectus or in documents we have incorporated by reference into this prospectus. However, no prospectus supplement will fundamentally change the terms that are set forth in this prospectus or offer a security that is not registered and described in this prospectus at the time of its effectiveness.

This prospectus may not be used to consummate a sale of any securities unless it is accompanied by a prospectus supplement.

We may sell the securities directly to investors or to or through agents, underwriters or dealers. We, and our agents or underwriters, reserve the right to accept or reject all or part of any proposed purchase of securities. If we offer securities through agents or underwriters, we will include in the applicable prospectus supplement:

the names of those agents or underwriters;

applicable fees, discounts and commissions to be paid to them;

details regarding over-allotment options, if any; and

the net proceeds to us.

Common Stock.

We may issue shares of our common stock from time to time. The holders of common stock are entitled to one vote per share on all matters to be voted upon by stockholders. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of common stock are entitled to receive ratably any dividends that may be declared from time to time by our board of directors out of funds legally available for that purpose. In the event of our liquidation, dissolution or winding up, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock then outstanding.

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Preferred Stock

We may issue shares of our preferred stock from time to time, in one or more series. Our board of directors may determine the rights, preferences, privileges and restrictions of the preferred stock, including dividend rights, conversion rights, preemptive rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of any series. Convertible preferred stock will be convertible into our common stock. Conversion may be mandatory or at your option and would be at prescribed conversion rates. If we sell any series of preferred stock under this prospectus and applicable prospectus supplements, we will fix the rights, preferences, privileges, qualifications and restrictions of the preferred stock of such series in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of the related series of preferred stock. We urge you to read the prospectus supplements related to the series of preferred stock being offered, as well as the complete certificate of designation that contains the terms of the applicable series of preferred stock.

Debt Securities

We may offer debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. The senior debt securities will rank equally with any other unsecured and unsubordinated debt. The subordinated debt securities will be subordinate and junior in priority of payment to certain of our other indebtedness to the extent described in a prospectus supplement. Convertible debt securities will be convertible into or exchangeable for our common stock or our other securities. Conversion may be mandatory or at your option and would be at prescribed conversion rates.

The debt securities will be issued under one or more documents called indentures, which are contracts between us and a national banking association or other eligible party, as trustee. In this prospectus, we have summarized certain general features of the debt securities. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of any indenture or supplemental indenture and the form of any debt securities which describes the terms of the series of debt securities being offered. We urge you to read the prospectus supplements related to the series of debt securities being offered, as well as the complete indentures that contain the terms of the debt securities.

Warrants

We may issue warrants for the purchase of common stock, preferred stock and/or debt securities, in one or more series. We may issue warrants independently or together with common stock, preferred stock and/or debt securities, and the warrants may be attached to or separate from these securities. In this prospectus, we have summarized certain general features of the warrants. We urge you, however, to read the prospectus supplements related to the particular series of warrants being offered, as well as the warrant agreements and warrant certificates that contain the terms of the warrants. Forms of the warrant agreements and forms of warrant certificates containing the terms of the warrants being offered will be incorporated by reference into the registration statement of which this prospectus is a part from a current report on Form 8-K that we file with the SEC.

We will evidence each series of warrants by warrant certificates that we will issue under a separate agreement. We will enter into the warrant agreements with a warrant agent. Each warrant agent will be a bank or trust company that we select. We will indicate the name and address of the warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

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Units

We may issue units consisting of common stock, preferred stock, debt securities and/or warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. In this prospectus, we have summarized certain general features of the units. We urge you, however, to read the prospectus supplements related to the series of units being offered, as well as the unit agreements that contain the terms of the units. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of unit agreement and any supplemental agreements that describe the terms of the series of units we are offering before the issuance of the related series of units.

Table of Contents**RISK FACTORS**

An investment in the securities offered through this prospectus involves certain risks. Before making an investment decision, you should carefully consider the specific risk factors set forth under the caption **Risk Factors** in the applicable prospectus supplement and under the caption **Risk Factors** in our filing with the Securities and Exchange Commission pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, incorporated by reference in this prospectus. To the extent that a particular offering implicates additional significant risks, we will include a discussion of those risks in the applicable prospectus supplement.

DEFICIENCY OF EARNINGS TO FIXED CHARGES

Our earnings were insufficient to cover fixed charges for each of the periods presented. Accordingly, the following table sets forth the deficiency of earnings to fixed charges for each of the periods presented. Because of the deficiency, the ratio information is not applicable. Amounts shown are in thousands.

| | Six Months | Year Ended December 31, | | |
|--|----------------------|--------------------------------|-------------|-------------|
| | Ended | 2009 | 2008 | 2007 |
| | June 30, 2010 | | | |
| Deficiency earnings available to cover fixed charges | \$ (1,730) | \$ (16,158) | \$ (17,602) | \$ (16,885) |

For purposes of computing the deficiency of earnings available to cover fixed charges, fixed charges represent interest expense, the portion of operating lease rental expense that is considered by us to be representative of interest and amortization of discount related to indebtedness; deficiency of earnings consists of loss before income taxes.

USE OF PROCEEDS

Unless otherwise provided in the applicable prospectus supplement, we intend to use the net proceeds from the sale of securities offered hereby for general corporate purposes, which may include the development and commercialization of our product candidates and the acquisitions of businesses, products, technologies or licenses that are complementary to our business. For each offering of securities hereunder, the prospectus supplement relating to that offering will set forth our intended use of the net proceeds received from the sale of those securities.

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PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities through underwriters or dealers, through agents, or directly to one or more purchasers. We may distribute the securities from time to time in one or more transactions:

at a fixed price or prices, which may be changed;

at market prices prevailing at the time of sale;

at prices related to such prevailing market prices; or

at negotiated prices.

A prospectus supplement or supplements will describe the terms of the offering of the securities, including:

the name or names of the underwriters, dealers or agents, if any;

the purchase price of the securities and the proceeds we will receive from the sale;

any over-allotment options under which underwriters may purchase additional securities from us;

any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;

any public offering price;

any discounts or concessions allowed or reallocated or paid to dealers; and

any securities exchange or market on which the securities may be listed.

Only the underwriters named in a prospectus supplement are underwriters of the securities offered by that prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement. Any public offering price and any discounts or concessions allowed or reallocated or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

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We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

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We may provide agents and underwriters with indemnification against civil liabilities related to this offering, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

All securities we may offer, other than common stock, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in over-allotment, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum price. Syndicate-covering or other short-covering transactions involve purchases of the securities, either through exercise of the over-allotment option or in the open market after the distribution is completed, to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

In compliance with guidelines of the Financial Industry Regulatory Authority, or FINRA, the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8% of the aggregate amount of the securities offered pursuant to this prospectus and any applicable prospectus supplement.

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DESCRIPTION OF COMMON STOCK

For a description of the material terms and provisions of our common stock, please see the applicable prospectus supplement, as well as the description of our capital stock in our Registration Statement on Form 8-A filed with the SEC on August 1, 2007, which is incorporated by reference in this prospectus.

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DESCRIPTION OF PREFERRED STOCK

Pursuant to our certificate of incorporation, our board of directors has the authority, without further action by the stockholders (unless such stockholder action is required by applicable law or NYSE AMEX rules), to designate and issue up to 40,000,000 shares of preferred stock, par value \$0.0001 per share, in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the powers, designations, rights and preferences of the shares of each wholly unissued series and any qualifications, limitations or restrictions thereon, and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

We will fix the powers, designations, rights and preferences and qualifications, limitations or restrictions of the preferred stock of each series in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of that series of preferred stock. This description will include:

the title and stated value;

the number of shares we are offering;

the liquidation preference per share;

the purchase price;

the dividend rate, period and payment date and method of calculation for dividends;

whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;

the procedures for any auction and remarketing, if any;

the provisions for a sinking fund, if any;

the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;

any listing of the preferred stock on any securities exchange or market;

whether the preferred stock will be convertible into our common stock, and, if applicable, the conversion price, or how it will be calculated, and the conversion period;

whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange price, or how it will be calculated, and the exchange period;

voting rights, if any, of the preferred stock;

preemptive rights, if any;

restrictions on transfer, sale or other assignment, if any;

whether interests in the preferred stock will be represented by depositary shares;

a discussion of any material or special United States federal income tax considerations applicable to the preferred stock;

the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs;

any limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and

any other specific terms, preferences, rights or limitations of, or restrictions on, the preferred stock.

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If we issue shares of preferred stock under this prospectus, the shares will be fully paid and non-assessable.

The General Corporation Law of the State of Delaware, the state of our incorporation, provides that the holders of preferred stock will have the right to vote separately as a class (or, in some cases, as a series,) on an amendment of the certificate of incorporation if the amendment would change the par value or, unless the certificate of incorporation provided otherwise, the number of authorized shares of the class or change the powers, preferences or special rights of the class or series so as to adversely affect the class or series, as the case may be. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. Preferred stock could be issued quickly with terms designed to delay or prevent a change in control of our company or make removal of management more difficult. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of our common stock.

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DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplement, summarizes the material terms and provision of any debt securities that we may offer under this prospectus. While the terms we have summarized below will apply generally to any future debt securities we may offer, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement. The terms of any debt securities we may offer under a prospectus supplement may differ from the terms described below. For any debt securities that we may offer, an indenture (and any relevant supplemental indenture) will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement that includes this prospectus, or as an exhibit to a current report on Form 8-K, incorporated by reference in this prospectus.

With respect to any debt securities that we issue, we will issue such debt securities under an indenture, which we would enter into with the trustee named in the indenture. Any indenture would be qualified under the Trust Indenture Act of 1939.

With respect to any debt securities that we issue, we will describe in each prospectus supplement the following terms relating to a series of debt securities:

the title;

the principal amount being offered, and if a series, the total amount authorized and the total amount outstanding;

any limit on the amount that may be issued;

whether or not we will issue the series of debt securities in global form, and if so, the terms and who the depository will be;

the maturity date;

the principal amount due at maturity;

whether and under what circumstances, if any, we will pay additional amounts on any debt securities held by a person who is not a United States person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional amounts;

the annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;

whether or not the debt securities will be convertible into shares of common stock or preferred stock and, if so, the terms of such conversion;

whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;

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the terms of the subordination of any series of subordinated debt;

the place where payments will be payable;

restrictions on transfer, sale or other assignment, if any;

our right, if any, to defer payment or interest and the maximum length of any such deferral period;

the date, if any, after which and the conditions upon which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemptions provisions;

the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;

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whether the indenture will restrict our ability to pay dividends or will require us to maintain any asset ratios or reserves;

whether we will be restricted from incurring any additional indebtedness, issuing additional securities, or entering into a merger, consolidation or sale of our business;

a discussion of any material or special United States federal income tax considerations applicable to the debt securities;

information describing any book-entry features;

provisions for a sinking fund purchase or other analogous fund, if any;

any provisions for payment of additional amounts for taxes;

whether the debt securities are to be offered at a price such that they will be deemed to be offered at an original issue discount as defined in paragraph (a) of Section 1273 of the Internal Revenue Code of 1986, as amended;

the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;

events of default;

whether we and/or the debenture trustee may change an indenture without the consent of any holders;

the form of debt security and how it may be exchanged and transferred;

description of the debenture trustee and paying agent, and the method of payments; and

any other specified terms, preferences, rights or limitations of, or restrictions on, the debt securities and any terms that may be required by us or advisable under applicable laws or regulations.

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DESCRIPTION OF WARRANTS

We may issue warrants to purchase shares of our common stock, preferred stock and/or debt securities in one or more series together with other securities or separately, as described in the applicable prospectus supplement. Below is a description of certain general terms and provisions of the warrants that we may offer. Particular terms of the warrants will be described in the warrant agreements and the prospectus supplement relating to the warrants.

The applicable prospectus supplement will contain, where applicable, the following terms of and other information relating to the warrants:

the specific designation and aggregate number of, and the price at which we will issue, the warrants;

the currency or currency units in which the offering price, if any, and the exercise price are payable;

the designation, amount and terms of the securities purchasable upon exercise of the warrants;

if applicable, the exercise price for shares of our common stock and the number of shares of common stock to be received upon exercise of the warrants;

if applicable, the exercise price for shares of our preferred stock, the number of shares of preferred stock to be received upon exercise, and a description of that series of our preferred stock;

if applicable, the exercise price for our debt securities, the amount of debt securities to be received upon exercise, and a description of that series of debt securities;

the date on which the right to exercise the warrants will begin and the date on which that right will expire or, if you may not continuously exercise the warrants throughout that period, the specific date or dates on which you may exercise the warrants;

whether the warrants will be issued in fully registered form or bearer form, in definitive or global form or in any combination of these forms, although, in any case, the form of a warrant included in a unit will correspond to the form of the unit and of any security included in that unit;

any applicable material U.S. federal income tax consequences;

the identity of any warrant agent for the warrants and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;

the proposed listing, if any, of the warrants or any securities purchasable upon exercise of the warrants on any securities exchange;

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if applicable, the date from and after which the warrants and the common stock, preferred stock and/or debt securities will be separately transferable;

if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;

information with respect to book-entry procedures, if any;

the anti-dilution provisions of the warrants, if any;

any redemption or call provisions, if any;

whether the warrants are to be sold separately or with other securities as parts of units; and

any additional terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

The transfer agent and registrar for any warrants will be set forth in the applicable prospectus supplement.

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DESCRIPTION OF UNITS

We may issue units consisting of common stock, preferred stock, debt securities and/or warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. In this prospectus, we have summarized certain general features of the units. We urge you, however, to read the prospectus supplements related to the series of units being offered, as well as the unit agreements that contain the terms of the units. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of unit agreement and any supplemental agreements that describe the terms of the series of units we are offering before the issuance of the related series of units.

We will evidence each series of units by unit certificates that we will issue under a separate agreement. We will enter into the unit agreements with a unit agent. Each unit agent will be a bank or trust company that we select. We will indicate the name and address of the unit agent in the applicable prospectus supplement relating to a particular series of units.

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LEGAL MATTERS

The validity of the securities offered by this prospectus will be passed upon for us by our legal counsel, Sheppard Mullin Richter & Hampton LLP.

EXPERTS

Marcum LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2009, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated herein by reference in reliance on Marcum LLP's report, given on their authority as experts in accounting and auditing.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference information that we file with the SEC, which means that we can disclose important information to you by referring you to those documents filed separately with the SEC. The information incorporated by reference is an important part of this prospectus, and information that we subsequently file will automatically update and supersede information in this prospectus and in our other filings with the SEC.

We incorporate by reference into this prospectus the documents listed below, which we have already filed with the SEC, and any future filings we make under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act, excluding any information in those documents that is deemed by the rules of the SEC to be furnished but not filed, until this offering is completed:

- (a) Our Annual Report on Form 10-K for the fiscal year ended December 31, 2009, filed with the SEC on March 16, 2010;
- (b) Our Quarterly Reports on Form 10-Q for the fiscal quarter ended March 31, 2010, filed with the SEC on May 10, 2010, and for the fiscal quarter ended June 30, 2010, filed with the SEC on August 9, 2010;
- (c) Our Current Reports on Form 8-K, filed with the SEC on January 4, 2010, February 18, 2010, March 15, 2010, June 7, 2010, June 11, 2010, June 24, 2010 and July 12, 2010;
- (d) Our Definitive Proxy Statement on Schedule 14A, filed with the SEC on April 28, 2010; and
- (e) The description of our common stock contained in our Registration Statement on Form 8-A, filed with the SEC on August 1, 2007, including all amendments or reports filed for the purpose of updating such description.

We will provide without charge to each person to whom a copy of this prospectus is delivered, upon written or oral request of any such person, a copy of any or all of the foregoing documents incorporated by reference in this prospectus, including any exhibits that are specifically incorporated by reference in such documents. Requests should be made to:

Dennis M. Mulroy, Chief Financial Officer

Cardium Therapeutics, Inc.

12255 El Camino Real, Suite 250

San Diego, California 92130

(858) 436-1000

You should rely only on the information provided or incorporated by reference in this prospectus or any supplement to this prospectus. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front cover of the document.

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WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other documents with the SEC. You may read and copy any document we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Our SEC filings are also available to you on the SEC's Internet site at <http://www.sec.gov>. In addition, electronic copies of our most recently filed reports are available through our website at <http://www.cardiumthx.com>.

This prospectus is part of a registration statement that we filed with the SEC. This prospectus, which is a part of the registration statement, does not contain all of the information contained in the registration statement, including the exhibits to the registration statement. You can obtain a copy of the registration statement from the SEC at the address listed above or from the SEC's Internet site.