



DIVISION OF
CORPORATION FINANCE

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

December 13, 2010

Via U.S. Mail

Mr. Dennis M. Mulroy
Chief Financial Officer
Cardium Therapeutics, Inc.
12255 El Camino Real, Suite 250
San Diego, California 92130

**Re: Cardium Therapeutics, Inc.
Schedule TO
Filed on December 2, 2010
File No. 005-51647**

Dear Mr. Mulroy:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

General

1. As currently represented, your offer is open for less than 20 full business days due to the federal holiday on December 24, 2010 and the 8:00 p.m. Eastern time expiration instead of an expiration time of midnight. See Question and Answer Eight in SEC Release No. 34-16623 (March 5, 1980). Provide that the offer will be open at least through midnight on the twentieth business day. See Rule 13e-4(f)(1)(i).
2. Please provide us with your analysis as to the applicability of Rule 13e-3 to this transaction.

3. Please state the number of warrants outstanding in each tranche. Please also provide your analysis as to how warrants issued only on certain dates containing unlimited “down round” price protection constitute a separate class for purposes of Rule 13e-4(f)(8)(i), in that you are not making the offer to all holders of all of your outstanding warrants.
4. You state that the shares of common stock that you intend to issue in exchange for tendered warrants will be freely transferable. Please provide us with your analysis in this regard.

Determination of validity..., page 9

5. You state that your determinations as to the validity and acceptance of all tenders will be final and binding. Similar language appears on page 4, 10 and 12 of your offering document. Please revise to indicate that security holders may challenge your determinations in a court of competent jurisdiction.

Withdrawal rights and change of election, page 10

6. Please disclose the date certain after which securities may be withdrawn pursuant to Rule 13e-4(f)(2)(ii). See Item 1004(a)(1)(vi) of Regulation M-A.

Material U.S. federal income tax consequences, page 16

7. Please provide an analysis supporting your reference to Treasury Department Circular 230, or delete the legend.

Financial Statements, page 18

8. The offer to exchange does not qualify to rely on Instruction 2 to Item 10 of Schedule TO to exclude nearly all financial information from the disclosure. In view of the fact that financial information required by Item 10 has been incorporated by reference, please revise to provide a summary of that information, as described in Item 1010(c)(1)-(3) of Regulation M-A. This revised disclosure must be disseminated to security holders. See Instruction 6 to Item 10 of Schedule TO and Interpretation I.H.7 in the July 2001 Interim Supplement to Publicly Available Telephone Interpretations, which may be viewed at the following link: <http://www.sec.gov/interps/telephone/phonesupplement3.htm>.
9. Please provide your analysis as to the materiality of pro forma financial statements. See Item 1010(b) of Regulation M-A.

Miscellaneous, page 19

10. You state that the offer is not being made to, nor will tenders be accepted from, holders residing in any jurisdiction in which the making or acceptance of the offer would not be in compliance with the laws of that jurisdiction. Please provide your analysis as to how limiting participation in this manner is consistent with Rule 13e-4(f)(8)(i). See Section II.G.1 of SEC Release No. 34-58597 (September 19, 2008). Similar language appears under the legend “Important” on the cover page.

Exhibit (a)(1)(B) – Form of Election Form/Notice of Withdrawal/Change of Election Form

11. Delete the language in this exhibit requiring the security holder to acknowledge or certify that he/she has “read” or “understands” all of the terms of the exchange offer.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company’s disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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You may contact me at (202) 551-3503 if you have any questions regarding our comments, or, if you require further assistance, you may call Nicholas P. Panos, Senior Special Counsel, at (202) 551-3266.

Sincerely,

David L. Orlic
Special Counsel
Office of Mergers & Acquisitions

cc: Via facsimile: (858) 523-6705
James A. Mercer III, Esq.
Sheppard, Mullin, Richter & Hampton LLP