



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

DIVISION OF
CORPORATION FINANCE

December 19, 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.
Amendment No. 1 to Schedule TO
Filed on December 16, 2010
File No. 005-51647**

Dear Mr. Mulroy:

We have reviewed your amended filing and have the following comments.

General

1. We note your response to prior comment 2. Please address the applicability of Rule 13e-3 to the warrants, rather than the common stock. Relevant considerations would include the number of record holders of the warrants, whether the warrants are listed on a national securities exchange, and whether the warrants were issued in a transaction registered under the Securities Act of 1933, such that a reporting obligation under Section 15(d) of that Act exists with respect thereto.
2. We note your response to prior comment 3. Please advise us as to how the warrants that have unlimited "down round" price protection may be treated differently for other purposes, including any different tax or accounting treatment.

Withdrawal rights and change of election, page 10

3. We note your response to prior comment 6. The date certain after which securities may be withdrawn pursuant to Rule 13e-4(f)(2)(ii) appears to be January 28, 2011, rather than January 31, 2011. See Item 1004(a)(1)(vi) of Regulation M-A. Please advise, or revise your disclosure.

Mr. Dennis M. Mulroy
Cardium Therapeutics, Inc.
December 19, 2010
Page 2

You may contact me at (202) 551-3503 if you have any questions regarding our comments.

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