



DIVISION OF
CORPORATION FINANCE

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

October 12, 2011

Via E-mail

Dr. Brian E. Ward, PhD
President & Chief Executive Officer
diaDexus, Inc.
343 Oyster Point Boulevard
South San Francisco, California 94080

Re: diaDexus, Inc.
Form 10-K for Fiscal Year Ended December 31, 2010
Filed March 22, 2011
File No. 000-26483

Dear Dr. Ward:

We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your document. In our comments, we ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe a comment applies to your facts and circumstances, please tell us why in your response. Please furnish us a letter on EDGAR under the form type label CORRESP that keys your responses to our comments.

After reviewing the information provided, we may raise additional comments and/or request that you amend your filing.

Notes to Consolidated Financial Statements

1. Business Overview, page 40

1. Please explain to us the factors that you considered in accounting for the merger of VaxGen and diaDexus as a reverse acquisition. In particular, explain how you considered the 62% ownership interest held by the pre-merger VaxGen stockholders in identifying Old diaDexus as the accounting acquirer. Refer us to the technical guidance upon which you relied.

Note 15. Reverse Merger, page 59

2. You indicate that merger transaction costs were recorded in additional-paid-in-capital. Tell us why these costs were not charged to expense in accordance with ASC 805-10-25-23.

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.

Please contact Frank Wyman, Staff Accountant, at (202) 551-3660 or Lisa Vanjoske, Assistant Chief Accountant, at (202) 551-3614, if you have any questions regarding these comments. In this regard, do not hesitate to contact me at (202) 551-3679.

Sincerely,

/s/ Jim B. Rosenberg

Jim B. Rosenberg
Senior Assistant Chief
Accountant