



DIVISION OF  
CORPORATION FINANCE

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

Mail Stop 6010

May 14, 2008

VIA U.S. MAIL AND FAX (858) 410-4949

Mr. Nicholas J. Venuto  
Chief Financial Officer  
Nanogen, Inc.  
10398 Pacific Center Court  
San Diego, California 92121

**Re: Nanogen, Inc.**  
**Form 10-K for the year ended December 31, 2007**  
**Filed March 31, 2008**  
**Form 10-Q for the quarter ended March 31, 2008**  
**Filed May 12, 2008**  
**File No. 000-23541**

Dear Mr. Venuto:

We have reviewed your letter dated April 11, 2008 and have the following comments. Where indicated, we think you should revise your future documents in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the Year Ended December 31, 2007

5. Business Combinations and Divestitures, page F-37

1. We note that in November 2007 you announced you were exiting the micro array business. We also note that you included inventory impairments and fixed asset impairments, which were connected with the micro array business, in cost of product sales and operating expenses, respectively. Please explain to us why your presentation of those impairment charges in continuing operations is in accordance with U.S. GAAP. Specifically, please explain to us why paragraphs 41 – 44 of SFAS 144 or other U.S. GAAP does not require you to present the micro array business as discontinued operations in your financial statements. Clarify your future disclosures as necessary based on our concerns.

Form 10-Q for the Period Ended March 31, 2008

8. Assignment of Royalties, page 15

2. We note on March 28, 2008 you entered into a new royalty interest assignment agreement (2008 Royalty Interest Assignment Agreement) with DRT in which you received an up-front payment of \$9.9 million, net of transaction costs, in exchange for assigning the royalty rights under the same license agreement with ABI to DRT for the period of January 1, 2012 through the end of your license agreement with ABI. Please tell us and revise your future disclosures to indicate how you accounted for this new agreement. Support your accounting with references to the applicable authoritative U.S. GAAP. Also, MD&A in your future filings should quantify and discuss the actual or expected impact of the new agreement on your capital resources, liquidity and results of operations.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

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You may contact Andri Boerman, Staff Accountant, at (202) 551-3645 or me at (202) 551-3603 if you have any questions regarding these comments. In this regard, do not hesitate to contact Angela Crane, Accounting Branch Chief, at (202) 551-3554.

Sincerely,

Jay Webb  
Reviewing Accountant