



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 6010

January 25, 2008

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

Mr. Robert Saltmarsh
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, 2006
Filed March 16, 2007
File No. 000-23541

Dear Mr. Saltmarsh:

We have reviewed your letter dated December 26, 2007 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, 2006

Note 1. Organization, page F-9

Variable Interest Entities, page F-9

1. Please refer to our prior comment 3 and respond to the following:
 - a. Based on your response, it appears that you did not record goodwill or an extraordinary loss in connection with the initial measurement of Jurilab when you acquired and became its primary beneficiary in July 2005. Instead, we note that you recorded the \$6.9 million excess of Jurilab's liabilities over Jurilab's assets at the acquisition date as a debit to equity based on paragraph 15 of ARB 51. Please note that the guidance at paragraphs 6 – 15 of ARB 51 is appropriate subsequent to the initial measurement of a newly consolidated entity. Refer to paragraph 22 of FIN 46(R). Further note that the earned surplus or deficit of a purchased subsidiary at the date of acquisition by the parent should not be included in consolidated earned surplus, refer to paragraph 9 of ARB 51.

FIN 46(R) requires the primary beneficiary shall initially measure the assets, liabilities, and non-controlling interests of the newly consolidated entity at their fair value. Further, paragraph 21 of FIN 46(R) requires that the excess of the sum of the fair value of the consideration paid, the fair value of the newly consolidated liabilities and non-controlling interest over the fair value of the newly consolidated identifiable assets and the reported amount of identifiable assets transferred by the primary beneficiary to the variable interest entity shall be reported in the period you become the primary beneficiary as either goodwill or an extraordinary loss.

Please explain to us why you did not record goodwill or an extraordinary loss for your 2005 Jurilab transactions and explain how your accounting for the initial measurement of Jurilab was in accordance with GAAP, citing the accounting literature that supports your conclusion. Please provide us with the journal entries associated with your investment in and consolidation of Jurilab in July 2005 with your response to our comment.
 - b. We also note you indicate that "Based upon the characteristics of Jurilab, [you] concluded that Jurilab met the definition of a business. At the time of [your] investment, they had their own facility, management and research personnel, had secured some debt financing and had commenced research and development activities on clinical targets". Please note that FIN 46(R) defines what constitutes a business. Based on the guidance under FIN 46(R), a business consists of inputs, processes applied to those inputs, and resulting outputs that are used to generate revenues.

Further the outputs are defined as the ability to obtain access to the customers that purchase the outputs of the set. Refer to paragraphs C3 and C4 of FIN 46(R) and please explain to us why Jurilab met the definition of a business under FIN 46(R) at its acquisition date.

- c. In your response, you stated that “Had goodwill been recorded rather than the acquired deficit as equity as discussed in the paragraph above, there would have been no difference in the ultimate accounting for the variable interest entity (both while it was consolidated and upon its ultimate deconsolidation)”.

Please note that goodwill arising from a business combination with a continuing non-controlling interest shall be tested for impairment using an approach consistent with the approach used to measure the non-controlling interest at the acquisition date. Refer to paragraph 38 of SFAS 142. Explain to us how you considered the impact of paragraph 38 of SFAS 142 and why you concluded that there would have no difference in the ultimate accounting for the variable interest entity for all periods and dates it is presented in your financial statements. Please cite the accounting literature that supports your conclusion in your response.

- d. We note that an additional equity investment in Jurilab in 2007 by a new investor resulted in a reduction in your ownership in Jurilab from 29.7% to 25.1%. The additional investment by a new investor appears to have resulted in your deconsolidation of Jurilab in July of 2007. Based on your disclosure in Form 10-Q for the quarter ended September 30, 2007, it appears that you reversed the accumulated loss that you had recognized in prior years as a result of deconsolidation of Jurilab.

Please explain to us how you accounted for the deconsolidation of Jurilab and your remaining 25.1% of ownership interest in Jurilab including the journal entries you recorded. Cite the specific accounting literature to support each journal entry you recorded. Also in this regard, please explain how you considered the guidance at paragraph 18 of APB 18.

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