

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

Mail Stop 3030

February 4, 2009

VIA U.S. MAIL AND FAX (305) 575-4140

Mr. Rao Uppaluri Senior Vice President and Chief Financial Officer Opko Health, Incorporated 4400 Biscayne Boulevard Suite 1180 Miami, Florida 33137

Re: Opko Health, Inc.

Form 10-K for the year ended December 31, 2007

Filed March 31, 2008 File No. 001-33528

Dear Mr. Uppaluri:

We have reviewed your filings and have the following comments. 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 documents. Where indicated, we think you should revise your 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.

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

Financial Statements, page 50

Note 1 Business and Organization, page 56

- 1. Please refer to our prior comment 1. We note from your response that the Frost Group only controlled 41% of the voting shares of eXegenics and this fact is one of the reasons you concluded the merger between eXegenics and Froptix was not a merger of entities under common control. Please tell us how you determined the 41% ownership level and the date at which this was determined. Please also reconcile this calculation with your disclosure on page 56 of your Form 10-K that on February 9, 2007 eXegenics completed the sale of approximately 19.4 million shares of its common stock, constituting 51% of its issued and outstanding shares of capital stock to a small group of investors led by the Frost Group. Finally, revise future filings to include the significant information outlined in your response.
- 2. In this regard, please also tell us about The Frost Groups ownership of Acuity immediately prior to the March 2007 merger.

Note 2 Acquisitions, page 56

3. Please refer to our prior comment 3. Please confirm you will revise future filings to provide the enhanced disclosure that you provided in your response.

Note 5 Debt, page 61

4. Please refer to our prior comment 4. Please provide us with authoritative GAAP literature that supports your accounting. In addition, please further explain to us how you determined the amount that you allocated to the cost of the Acuity transaction (\$1.3 million), the cost of the reverse merger between Froptix and eXegenics (\$11.0 million) and debt commitment fee (\$0.1 million) and why. We are especially interested why any costs associated with the warrants would properly be allocated to the costs of the reverse merger.

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 with your amendment 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 amendments responses to our comments.

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You may contact Julie Sherman, Staff Accountant, at (202) 551-3640 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