

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

Mail Stop 3030

December 17, 2008

VIA U.S. MAIL AND FAX (305) 575-6444

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. We note your disclosure that eXegenics, Froptix and Acuity were part of a three-way merger pursuant to the terms of a Merger Agreement dated March 27, 2007 and that you accounted for the three-way merger as a reverse merger between Froptix and eXegenics and a subsequent asset acquisition of Acuity by Froptix. Please respond to the following:
 - Please tell us how you determined that the merger should appropriately be accounted for as a reverse merger between Froptix and eXegenics and a subsequent purchase by the combined company of Acuity.
 - Please disclose the purchase price of Acuity in the notes to the financial statements. Refer to paragraph 51 (d) of SFAS 141.
 - Please tell us your considerations as to whether Acuity represents your predecessor.

Revise your future filings as necessary based on the matters outlined in our comment.

Note 2 Acquisitions, page 56

2. It appears that both the acquisition of Acuity and OTI may be material to your financial statements on an individual basis. Please tell us why you believe it was appropriate to combine the acquisitions for purposes of providing the condensed balance sheet disclosing the amount assigned to each major asset and liability. As part of your response please provide us with a balance sheet for each material acquisition if appropriate based on the guidance provided by paragraph 51 (e) of SFAS 141.

Revise your future filings as necessary based on our comment.

- 3. We see that you allocated a significant portion of the purchase price of Acuity to inprocess research and development. Given the significance please tell us how you determined the cost of the related in-process research and development. Please also tell us and revise your discussion in future filings to address specific research & development projects or groups of related projects as follows:
 - To the extent possible, disclose the costs incurred to date, the current status, and the estimated completion dates, completion costs and capital requirements.
 - If estimated completion dates and costs are not reasonably certain, discuss those uncertainties.
 - Disclose the risks and uncertainties associated with completing development projects on schedule and the consequences if they are not completed timely.

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• Discuss your expected long-term plan for Research & Development expenditures.

Note 5 Debt, page 61

4. We see that you granted warrants to purchase 4 million shares of your common stock to the Frost Group in connection with the assumption <u>and</u> amendment of the line of credit previously entered into by Acuity and you determined the fair value of such warrants to be \$12.4 million. Please tell us how you determined that the cost of the warrants should appropriately be allocated on a relative fair value basis to the cost of the Acuity acquisition, the cost of the reverse merger between Froptix and eXegenics and a debt commitment fee. Please cite the accounting guidance upon which you based your accounting as part of your response.

Note 14 Strategic Alliances, page 70

5. We see from your disclosure that you have entered into a number of partnerships and license agreements with third parties, including the Trustees of the University of Pennsylvania, Intradigm Corporation, the Board of Trustees of the University of Illinois, the University of Florida Research Foundation, Civamide, Pathogenics and others. The majority of these agreements obligate you to make payment upon certain milestones and also pay certain royalties. Please tell us if the milestone payments and royalties that you may be obligated to pay are material and if so please confirm you will revise future filings to disclose the amounts and expected timing of any such payments.

Form 10-Q for the Quarterly Period Ended September 30, 2008

Financial Statements, page 5

6. Please note that paragraph 43 of SFAS 142 requires the aggregate amount of goodwill to be presented as a separate line item in the statement of financial position and paragraph 45 (c) of SFAS 142 requires you to disclose the changes in the carrying amount of goodwill during the period. Please revise future filings as required based on the referenced SFAS 142 guidance.

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.

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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an Mr. Rao Uppaluri Opko Health, Inc. December 17, 2008 Page 4

informed investment decision. 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 connection with responding to our comments, please provide, in writing, a 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

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