



February 16, 2009

Via EDGAR

Mr. Jay Webb
Reviewing Accountant
Division of Corporate Finance
United States Securities and Exchange Commission
Mail Stop 3030
Washington, D.C. 20549

Re: OPKO Health, Inc.
Form 10-K for the year ended December 31, 2007
Filed March 31, 2008
File No. 001-33528

Dear Mr. Webb:

We received comments from the Staff of the Division of Corporation Finance (the "Staff") of the Securities and Exchange Commission (the "SEC") dated February 4, 2009, regarding the Form 10-K for the fiscal year ended December 31, 2007 ("Form 10-K") of OPKO Health, Inc. (the "Company"). We appreciate your comments and have reviewed them carefully. This letter responds to the Staff's comments. For convenience, we have included the Staff's comments in italics before each of the Company's responses. References in our responses to "we," "our" or "us" mean the Company.

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.



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Response

The 41% ownership level of the Frost Group is determined by calculating the number of shares held by the Frost Group divided by the number of shares outstanding after the shares were issued on February 9, 2007. As disclosed, the sale of eXegenics shares was made to a small group of investors. The Frost Group was the largest investor in this transaction, acquiring 15.5 million of the 19.4 million shares issued. Other investors unrelated to the Frost Group also participated and purchased shares from eXegenics. It should be noted that the shareholdings at the time of the merger, March 27, 2007 had not changed for the Frost Group.

In future filings, we will disclose the number of shares purchased by The Frost Group in the February 2007 transaction.

2. In this regard, please also tell us about The Frost Group's ownership of Acuity immediately prior to the March 2007 merger.

Response

The Frost Group held a total of 15,625 Warrants to acquire Acuity Common Stock and 125,000 Warrants to Acquire Acuity Series B Preferred Stock, representing less than 1% of Acuity's fully diluted shares outstanding on an as converted basis immediately prior to the merger. These instruments were issued in connection with the line of credit between the Frost Group and Acuity on January 11, 2007. The Frost Group held no other equity interest in Acuity 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.

Response

We will enhance our future filings to include the additional disclosure in the Notes to our Financial Statements.

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)



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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.

Response

The warrants that were issued to the Frost Group were issued in connection with expansion and extension of the line of credit and were only issuable in the event both the business combination (the acquisition of Acuity) and the transaction whereby Froptix became a public company (the reverse merger between Froptix and eXegenics) occurred.

We were unable to locate any direct authoritative literature regarding allocating the costs of warrants issued only in the event that three different transactions occur (line of credit, business combination and reverse merger); however, support for the concept of allocating common costs over separate transactions exists in SAB 77, which indicates that fees paid to an investment banker in connection with a transaction to be accounted for as a business combination for providing interim financing or underwriting services must be allocated between direct costs of the acquisition and debt issue costs. Authoritative literature does exist for each of the transactions that had to occur for the warrants to be issued as follows:

1. Cost of obtaining a line of credit — Accounting Principal Board Opinion (“APB”) 21, *Interest on Receivables and Payables*
2. Cost of consummating a business combination — Financial Accounting Standards No. 141, *Business Combinations*
3. Cost of reverse merger — November 16, 1998 SEC Communication

We based our allocation of the warrant cost to each component on the relative fair value of each transaction and believe it is consistent with the concepts in SAB 77 and results in an appropriate allocation of the warrant costs to the transactions impacted by their issuance.

Sincerely,

/s/ Rao Uppaluri

Rao Uppaluri

Senior Vice President and Chief Financial Officer

Copy: Julie Sherman, Staff Accountant