

Mail Stop 4720

June 11, 2009

Gregory A. Demopoulos, M.D.
President, Chief Executive Officer,
Chief Medical Officer and
Chairman of the Board of Directors
Omeros Corporation
1420 Fifth Avenue, Suite 2600
Seattle, WA 98101

**Re: Omeros Corporation
Amendment No. 3 to Registration Statement on Form S-1/A
Filed May 15, 2009
File No. 333-148572**

Dear Dr. Demopoulos:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document 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 supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not 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 on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Amendment No. 3 to Form S-1/A

Management's Discussion and Analysis of Financial Condition and Results of Operations

Critical Accounting Policies and Significant Judgments and Estimates, page 46

Stock-Based Compensation, page 47

Common Stock Fair Value, page 48

1. Please tell us why the expected volatility has remained the same between 2007 and 2008, but increased in the first quarter 2009. Additionally, please tell us whether you are using historical or implied volatility. Lastly, on page 48 you state that your expected volatility is based on the “volatilities of a peer group of similar companies whose share prices are publicly available.” Please provide to us supplementally the companies in the peer group, their volatilities for the periods that you considered, a description as to why the companies were considered to be similar, and any other factors used in your determination.

Fair Value Measurement of Financial Instruments, page 55

2. Based on your disclosure, it appears you use external market sources to assist you in determining fair values of your mortgage-backed securities. Please revise your disclosure to explain the extent to which, and how, the information is obtained and used in developing the fair value measurements in the consolidated financial statements. Please include a discussion of the following:
 - a. The number of quotes or prices you generally obtained per instrument, and if you obtained multiple quotes or prices, how you determined the ultimate value you used in your financial statements;
 - b. Whether, and if so, how and why, you adjusted quotes or prices you obtained from primary and secondary broker/dealers;
 - c. The extent to which the primary and secondary broker/dealers are gathering observable market information as opposed to using unobservable inputs and/or proprietary models in making valuation judgments and determinations;
 - d. Whether the broker quotes are binding or non-binding; and
 - e. The procedures you performed to validate the prices you obtained to ensure the fair value determination is consistent with SFAS 157, Fair Value Measurements, and to ensure that you properly classified your assets and liabilities in the fair value hierarchy.

Liquidity and Capital Resources, page 59

3. We note your disclosure on page 62 that you have entered into an agreement with The Michael J. Fox Foundation to provide grant funding.
 - We note that your receipt of \$232,000 is conditioned upon your compliance with the “terms” of the agreement. Please expand your disclosure to describe the material terms of the agreement with which you must comply to receive this funding.

- We note that you have not filed this agreement as an exhibit to your registration statement. Please file this agreement as an exhibit, or provide us with a legal analysis as to why you believe this agreement need not be filed pursuant to Item 601(b)(10) of Regulation S-K.

Contractual Obligations and Commitments, page 63

4. With respect to the agreements discussed in Note 7, please disclose the aggregate amount of milestone payments that you may be required to make and describe the events that would trigger their payment.

Business

Central Nervous System Programs, page 84

Addiction Program, page 84

5. We note your disclosure on page 85 that you have agreed to make milestone payments to Dr. Ciccocioppo pursuant to a Patent Assignment Agreement. Please expand your disclosure to describe the aggregate amount of potential milestone payments you may be required to make.

Manufacturing, page 91

6. We note your response to Comment 3 and reissue our comment in part. Please expand your disclosure on page 92 to identify the events specified in Section 10.4 of Exhibit 10.28, which give you the unilateral right to terminate your agreement with Hospira in whole or in part at any time prior to the end of its term. We continue to believe that the provision in Section 10.4 is material to an investor's understanding of your contract with Hospira because it is related to termination.
7. We note your disclosure on page 93 that you have entered into development and discovery agreements with Affitech AS and North Coast Biologics, LLC, each of which require you to make milestone payments. Please expand your disclosure of each agreement to describe the aggregate amount of potential milestone payments you may be required to make.

Management

Executive Compensation, page 106

8. We note your disclosure on page 107 that you partly rely on executive compensation surveys to determine each element of compensation. Please expand your disclosure to identify these surveys by name.

Principal Shareholders

9. We note that ARCH Venture Partners is a beneficial owner of your common stock. Please expand your disclosure to identify the individual who has voting and/or dispositive power with respect to these shares. Please also provide the business address of ARCH Venture Partners. Refer to Item 403 of Regulation S-K.

Index to Financial Statements, page F-1

Notes to Consolidated Financial Statements, page F-16

Note 5 – Notes Payable, page F-30

Loan and Security Agreement, page F-31

10. Please tell us, and revise your disclosure to include a discussion of the events that would trigger a “material adverse effect”. Additionally, please more fully explain your rationale for classifying the entire amount as current liabilities, clarifying how you concluded that the acceleration clause is subjective. Lastly, please disclose how the immediate repayment of the loans would impact your liquidity.

Note 7 – Commitments and Contingencies, page F-35

11. For each agreement discussed in this footnote, please revise your disclosure here to include a discussion of the amounts that could potentially be due for royalties and/or milestone payments.

* * * * *

As appropriate, please amend your filing in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested supplemental information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require for an informed 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.

Gregory A. Demopoulos, M.D.
Omeros Corporation
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Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert this action 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 connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as a confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Tabatha Akins at (202) 551-3658 or Mary Mast at (202) 551-3613 if you have questions regarding comments on the financial statements and related matters. Please contact Rose Zukin at (202) 551-3239 or me at (202) 551-3715 with any other questions.

Sincerely,

Jeffrey P. Riedler
Assistant Director

Gregory A. Demopoulos, M.D.
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cc: Craig E. Sherman, Esq.
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