

Mail Stop 6010

August 17, 2006

Lloyd H. Malchow  
President and Chief Executive Officer  
SenoRx, Inc.  
11 Columbia, Suite A  
Aliso Viejo, California 92656

**Re: SenoRx, Inc.**  
**Amendment No. 2 to Registration Statement on Form S-1**  
**Filed August 9, 2006**  
**File No. 333-134466**

Dear Mr. Malchow:

We have reviewed your registration statement 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 information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Executive Compensation, page 68

1. Please expand your executive compensation section and summary compensation table on page 68 to disclose the warrant you issued to Lloyd Malchow that is referenced on page F-23.

Financial Statements, page F-1

Note 8 – Warrants, page F-22

1. Please refer to prior comment 6. We note from your response that the number of warrants and exercise price per share represents the historical pre-split amounts. In the audit report on page F-2 and on page F-9, we note that the financial statements should include the effects of the 1-for-3.5 reverse stock split. Please revise or advise.

Interim Financial Statements, page F-

Note 6. Subsequent Events, page F-36

2. Please revise your balance sheet to report hybrid financial instruments measured at fair value under the election in SFAS 155 by (a) displaying a separate line item for the fair value and non-fair-value carrying amounts of liabilities or (b) presenting the aggregate of those fair value and non-fair-value amounts and parenthetically disclosing the amount of fair value included in the aggregate amount. Please see paragraph 4(e) of SFAS 155.

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As appropriate, please amend your registration statement 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.

You may contact at David Burton at (202) 551-3626 or Kate Tillan, Assistant Chief Accountant, at (202) 551-3604 if you have questions regarding comments on the financial statements and related matters. Please contact Donald C. Hunt at (202) 551-3647 or me at (202) 551-3800 with any other questions.

Sincerely,

Peggy Fisher  
Assistant Director

cc (via fax): David Saul, Esq., Wilson Sonsini Goodrich & Rosati, P.C.