

Mail Stop 6010

October 29, 2007

Paul Goddard, Ph.D.
Chairman of the Board and Chief Executive Officer
ARYx Therapeutics, Inc.
6300 Dumbarton Circle
Fremont, CA 94555

**Re: ARYx Therapeutics, Inc.
Amendment No. 2 to Registration Statement on Form S-1
Filed October 23, 2007
File No. 333-145813**

Dear Dr. Goddard:

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.

Liquidity and Capital Resources, page 55

1. We note the disclosure related to the October 19, 2007 amendment to the Lighthouse loan agreement. Please revise to disclose the warrant issued to Lighthouse and explain how the number of shares issuable on exercise of the warrant increases as the amount borrowed increases. Similarly, revise the "Recent Sales of Unregistered Securities" to disclose this issuance of the warrant.

Additionally, tell us why you believe the issuance should not be integrated with this offering.

* * * * *

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 file your cover letter on EDGAR under the form type label CORRESP. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

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 Vanessa Robertson at (202) 551-3649 or Mark Brunhofer at (202) 551-3638 if you have questions regarding comments on the financial statements and related matters. Please contact Sonia Barros at (202) 551-3655 or Suzanne Hayes at (202) 551-3675 with any other questions.

Sincerely,

Jeffrey P. Riedler
Assistant Director

cc: James F. Fulton, Jr., Esq.
Cooley Godward Kronish LLP
Five Palo Alto Square
3000 El Camino Real
Palo Alto, CA 94306-2155