



DIVISION OF
CORPORATION FINANCE

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

November 22, 2011

Via E-Mail

Dr. Christopher Anzalone, Ph.D.
Chief Executive Officer
Arrowhead Research Corporation
225 South Lake Avenue, Suite 300
Pasadena, California 91101

**Re: Arrowhead Research Corporation
Registration Statements on Form S-3
Filed November 21, 2011
File Nos. 333-178072 and 333-178073**

Dear Dr. Anzalone:

We have limited our review of your registration statements to those issues we have addressed in our comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. Where you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

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1. Please note that Item 12(a)(2) of Form S-3 requires you to incorporate by reference specifically all reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by the Form 10-K that you incorporate by reference. Please tell us why you have not incorporated by reference into these registration statements the Form 8-K that you filed on October 24, 2011 or revise the disclosure to include this report.

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 the information the Securities Act of 1933 and all applicable Securities Act rules require. 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.

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Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company 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 staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as 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. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Please contact John Krug, Senior Counsel, at (202) 551-3862, Dan Greenspan, Branch Chief, at (202) 551-3623 or me at (202) 551-3715 with any questions.

Sincerely,

/s/ Daniel Greenspan for

Jeffrey Riedler
Assistant Director

cc: Ryan Murr, Esquire
Ropes & Gray LLP
Three Embarcadero Center
San Francisco, California 94111