

Arrowhead Research Corporation  
225 South Lake Avenue, Suite 1050  
Pasadena, CA 91101

February 11, 2014

**VIA EDGAR**

Securities and Exchange Commission  
100 F Street, N.E.  
Washington, D.C. 20549

Attention: Jeffrey P. Riedler  
Daniel Greenspan  
Austin Stephenson

Re: Arrowhead Research Corporation  
Registration Statement on Form S-3 (File No. 333-193748)

Ladies and Gentlemen:

Pursuant to Rule 461 promulgated under the Securities Act of 1933, as amended, Arrowhead Research Corporation (the "Company") hereby requests that its Registration Statement on Form S-3 (File No. 333-193748) (the "Registration Statement"), be declared effective at 4:00 p.m., Washington, D.C. time, on February 12, 2014, or as soon thereafter as practicable.

In connection with the acceleration of the declaration of effectiveness of the Registration Statement, the Company hereby acknowledges that:

- should the Securities and Exchange Commission (the "Commission") or the staff of the Commission (the "Staff"), acting pursuant to delegated authority, declare the Registration Statement effective, it does not foreclose the Commission from taking any action with respect to the Registration Statement;
- the action of the Commission or the Staff, acting pursuant to delegated authority, in declaring the Registration Statement effective, does not relieve the Company from its full responsibility for the adequacy and accuracy of the disclosure in the Registration Statement; 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.

*[Signature page follows]*

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Very truly yours,

ARROWHEAD RESEARCH CORPORATION

By: /s/ Ken Myszowski  
Ken Myszowski  
Chief Financial Officer

*Signature Page to Acceleration Request*