

January 9, 2012

VIA EDGAR

Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549-4628

Re: Arrowhead Research Corporation (the "Company")
Acceleration Request for Registration Statement on Form S-3
File No. 333-178072

Ladies and Gentlemen:

Pursuant to Rule 461 under the Securities Act of 1933, as amended, the undersigned registrant hereby requests that the effective date of the above-referenced registration statement be accelerated so that it will be declared effective at 4:00 p.m. (Eastern) on Wednesday, January 10, 2012, or as soon thereafter as practicable.

In making this acceleration request, the Company acknowledges 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.

Sincerely,

/s/ Kenneth A. Myszkowski

Kenneth A. Myszkowski
Chief Financial Officer

cc: Ryan Murr, Esq. (Ropes & Gray LLP)