

Via EDGAR CORRESP.

Mr. Jim B. Rosenberg
Mr. Frank Wyman
Division of Corporation Finance
United States Securities and Exchange Commission
100 F Street NE
Washington, D.C. 20459

Re: **Arrowhead Research Corporation**
Form 10-K for fiscal year ended September 30, 2008
Form 10-Q for quarterly period ended December 31, 2008
File No. 000-21898

Dear Mr. Rosenberg and Mr. Wyman:

We have reviewed the comments of the staff of the Division of Corporation Finance (the "Staff") of the Securities and Exchange Commission (the "Commission") with respect to the Annual Report on Form 10-K of Arrowhead Research Corporation (the "Company") for the fiscal year ended September 30, 2008, as set forth in your letter dated March 10, 2009 (the "Comment Letter"). We have also reviewed the Staff's comments with respect to the Quarterly Report on Form 10-Q of the Company for the quarter ended December 31, 2008, as set forth in the Comment Letter. We appreciate the comments intended to assist us in complying with applicable disclosure requirements and in enhancing the overall disclosure in our 10-K and 10-Q filings.

For reference purposes, the text of the Comment Letter has been reproduced herein with responses below each numbered comment. In connection with our responses, Arrowhead acknowledges that:

- Arrowhead is responsible for the adequacy and accuracy of the disclosures in the filing;
- Staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- Arrowhead may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Form 10-K for fiscal year ended September 30, 2008

Note 1. Organization and Significant Accounting Policies, page F-8

Principles of Consolidation

1. You disclose losses allocated to minority interests in 2007 and 2008 of \$6,727,284 and \$7,445,542, respectively, while the minority interest in the equity capital of your primary subsidiaries amounted to \$152,609 at September 2007 and zero at September 30, 2008. Given the magnitude of these loss allocations, please explain to us how your accounting for minority interests complies with ARB 51, particularly your basis for allocating losses in 2007 and 2008 as prescribed in paragraph 15. Include in your analysis to us a roll forward of the minority interests accounts shown on your balance sheets that reconciles to the corresponding disclosure in the Notes, particularly Note 4. Revise your disclosure to describe your accounting for minority interests, your existing obligations to fund subsidiary losses and other key contractual terms that govern minority interests in all of your subsidiaries. In addition, revise your disclosure to describe and quantify the specific transactions underlying the "increase in Arrowhead proportionate share of Insert Therapeutic's equity" recorded in fiscal 2007 for \$2,401,394 and the corresponding amount recorded for Unidym in fiscal 2008 for \$1,720,962.

Response to Comment 1 Arrowhead's accounting for the minority interest is consistent with Paragraph 15 of ARB 51 which reads:

"In the unusual case in which losses applicable to the minority interest in a subsidiary exceed the minority interest in the equity capital of the subsidiary, such excess and any further losses applicable to the minority interest should be charged against the majority interest as there is no obligation of the minority interest to make good such losses. However, if future earnings do materialize, the majority interest should be credited to the extent of such losses previously absorbed."

In fiscal years 2007 and 2008, losses applicable to the minority interests in the equity capital of the each subsidiary exceeded the minority interests in each subsidiary and any excess loss was charged against the majority (Arrowhead) interest as shown on the Arrowhead Consolidated Subsidiary Minority Interest Rollforward Calculation attached as Exhibit A.

Arrowhead proposes the following revisions to be included in the next 10-Q to be filed for the three month period ended March 31, 2009.

Minority Interests in Majority owned Subsidiaries - Operating losses applicable to the majority-owned Calando and Unidym have periodically exceeded the minority interests in the

equity capital of either subsidiary. Such excess losses applicable to the minority interests have been and are borne by the Company as there is no obligation of the minority interests to fund any losses in excess of their original investment. There is also no obligation or commitment on the part of the Company to fund operating losses of any subsidiary whether wholly-owned or majority owned.

When there is a change in the Company's proportionate share of a development-stage subsidiary resulting from additional equity raised by the subsidiary, the change is accounted for as an equity transaction in consolidation. To the extent that the increase in the calculated value of the Company's interest in the equity of the subsidiary exceeds the Company's investment in the offering, that increase in value is referred to as the Company's "increase in its proportionate share of the Subsidiary's equity" and the amount is recorded as an increase in the Company's Additional Paid in Capital.

When Insert Therapeutics raised \$10.1 million in October of 2006, the Company participated by investing \$5.0 million in the offering. In comparison, the value of the Company's equity in Insert increased by \$7,401,394. Consistent with the guidance found in SAB.T.5H, the difference between the amount invested by the Company and the increase in Company's equity value in the subsidiary or \$2,401,394 was recorded as an "increase in Arrowhead's proportionate share of the Subsidiary's equity" and is shown as an increase in the Company's Additional Paid in Capital. A similar calculation was made for the Unidym \$10.0 million offering in the Fall of 2007. The Company contributed \$3.0 million but the value of its interest in the equity of Unidym increased by \$4,720,962. The \$1,720,962 difference was recorded as an "increase in Arrowhead's proportionate share of the Subsidiary's equity" and is shown as an increase in the Company's Additional Paid in Capital.

Form 10-Q for Quarterly Period Ended December 31, 2008

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Contractual Obligations and Commitments" on page 33

2. Please revise the table to include the Calando Unsecured Promissory Notes and associated interest.

Response to Comment 2 A draft of the revised table is shown below as it would have appeared at December 31, 2008. The table has been expanded to include the Calando Unsecured Promissory Notes and the associated 10 percent annual interest for the 2-year term. It is proposed that these additions be included prospectively in the 10-Q to be filed for the quarter ended March 31, 2009.

Contractual Obligations and Commitments

Our contractual commitments as of December 31, 2008 are summarized below by category in the following table:

	<u>Total</u>	<u>Less than 1 year</u>	<u>1-3 Years</u>	<u>3-5 Years</u>	<u>More than 5 Years</u>
Operating Lease Obligation	\$4,587,602	\$1,001,205	\$1,423,230	\$1,068,793	\$1,094,374
Capital Lease Obligation	\$1,431,534	\$ 904,127	\$ 527,407	\$ —	\$ —
Calando Promissory Notes Obligation	\$3,019,761	\$ 251,647	\$2,768,114	\$ —	\$ —
Sponsored Research(1)	\$ 357,483	\$ 191,375	\$ 166,108	\$ —	\$ —

(1) The sponsored research obligations in the table above include our commitments to Duke University.

* * *

We hope that this provides an adequate response to the Staff's concerns. If you have any questions about the answers above or wish to discuss them, please call me at (626) 304-3400 or email me at pmcdonnel@arrowres.com.

Sincerely,

/s/ Paul C. McDonnel

Paul C. McDonnel
Chief Financial Officer

cc:

Rachael Wexler, Esq.
Ryan Murr, Esq.

Arrowhead Consolidated Subsidiary Minority Interest Rollforward Calculation

<u>Subsidiary Name</u>		<u>Disc. Ops Aonex</u>		<u>Insert</u>		<u>Calando</u>		<u>Unidym</u>		<u>Total</u>
9/30/2006	Balance	<u>\$25,748</u>	(C)	<u>\$ —</u>		<u>\$ 788,648</u>	(D)	<u>\$ 120,042</u>		<u>\$ 934,437</u>
Calando Minority Interest Adjustment— Per Prior Comment Letter						\$ (963,150)	(D)			
Plus: Additional Investment by minority shareholders		<u>—</u>		<u>2,734,952</u>		<u>—</u>		<u>4,200,000</u>		<u>6,934,952</u>
Minority Investment Balance Before Loss Allocation	(A)	<u>—</u>		<u>2,734,952</u>		<u>(174,502)</u>	(D)	<u>4,320,042</u>		<u>7,869,389</u>
Loss for Fiscal Year 2007		<u>—</u>		<u>(7,253,774)</u>		<u>(7,127,636)</u>		<u>(15,230,438)</u>		<u>(29,611,848)</u>
Minority Ownership % (specific % will fluctuate with investments)		<u>—</u>		<u>35.6%</u>		<u>30.2%</u>		<u>34.8%</u>		<u>N/A</u>
Allocation of loss to Minority interest	(B)	<u>—</u>		<u>(2,582,344)</u>		<u>174,502</u>	(D)	<u>(4,320,042)</u>		<u>(6,727,884)</u>
9/30/2007	(A+B) Balance	<u>\$ —</u>		<u>\$ 152,608</u>		<u>\$ —</u>		<u>\$ —</u>		<u>\$ 152,608</u>
Plus: Additional Investment by minority shareholders		<u>—</u>		<u>—</u>		<u>—</u>		<u>7,292,933</u>		<u>7,292,933</u>
Minority Investment Balance Before Loss Allocation	(A)	<u>—</u>		<u>152,608</u>		<u>—</u>		<u>7,292,933</u>		<u>7,445,541</u>
Loss for Fiscal Year 2008		<u>—</u>		<u>(7,215,609)</u>		<u>(7,215,609)</u>		<u>(15,256,565)</u>		<u>(29,687,782)</u>
Minority Ownership % (specific % will fluctuate with investments)		<u>Sold</u>		<u>35.6%</u>		<u>35.6%</u>		<u>48.8%</u>		<u>N/A</u>
Allocation of loss to Minority interest	(B)	<u>—</u>		<u>(152,608)</u>		<u>—</u>		<u>(7,292,933)</u>		<u>(7,445,541)</u>
9/30/2008	(A+B) Balance	<u>\$ —</u>		<u>\$ —</u>		<u>\$ —</u>		<u>\$ —</u>		<u>\$ —</u>

Note (C) - Aonex was sold in May 2008 and is included in discontinued operations as of September 30, 2008, Arrowhead's fiscal year end. It is shown here to explain the components of the beginning minority interest balance as of September 30, 2006 per the original 2007 10-K filed on December 14, 2007.

Note (D) - As more fully explained in Arrowhead's August 24, 2007 response to the June 28, 2007 SEC Comment letter, Calando's minority interest and goodwill balances were adjusted to recognize minority "interest to the extent of the minority interest's actual capital investment and not the minority interest's ownership percentage." "As described in Comment 3, (in Arrowhead's August 24, 2007 response) the original recording of Calando goodwill happened in conjunction with the recording of the minority interest for those same investments. The \$963,150 of goodwill is eliminated together with corresponding minority interest." This adjustment is used to eliminate the remaining minority interest balance, eliminate the associated goodwill balance with the difference shown as a reduction in the portion of the operating loss attributable to the minority interest. As of the end of fiscal 2007 and 2008 no minority interest remains at Calando to absorb operating losses. All losses are borne by the majority owner consistent with ARB 51.