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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, DC 20549

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**FORM 10-Q**

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(Mark One)

**QUARTERLY REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended March 31, 2014

**TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission file number 000-21898

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**ARROWHEAD RESEARCH CORPORATION**

(Exact name of registrant as specified in its charter)

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**Delaware**  
(State of incorporation)

**46-0408024**  
(I.R.S. Employer Identification No.)

**225 S. Lake Avenue, Suite 1050  
Pasadena, California 91101  
(626) 304-3400**  
(Address and telephone number of principal executive offices)

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Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated  Accelerated filer

Non-accelerated filer  (Do not check if a smaller reporting company) Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

The number of shares of the registrant's common stock outstanding as of May 1, 2014 was 51,872,371.

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**PART I. FINANCIAL INFORMATION**

**ITEM 1. FINANCIAL STATEMENTS**

**Arrowhead Research Corporation and Subsidiaries  
(A Development Stage Company)  
Consolidated Balance Sheets**

	Unaudited March 31, 2014	September 30, 2013
<b>ASSETS</b>		
<b>CURRENT ASSETS</b>		
Cash and cash equivalents	\$ 142,847,860	\$ 19,114,444
Trade receivable	-	75,000
Prepaid expenses	643,023	532,354
Other current assets	633,807	91,660
Short term investments	17,798,475	9,030,261
<b>TOTAL CURRENT ASSETS</b>	<b>161,923,165</b>	<b>28,843,719</b>
Property and equipment, net	3,290,270	3,513,235
Intangible assets, net	3,213,186	3,240,513
Investments	34,048,359	1,702,153
Other assets	166,414	30,011
<b>TOTAL ASSETS</b>	<b>\$ 202,641,394</b>	<b>\$ 37,329,631</b>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
<b>CURRENT LIABILITIES</b>		
Accounts payable	\$ 2,511,572	\$ 1,199,632
Accrued expenses	913,856	638,884
Accrued payroll and benefits	732,131	905,771
Deferred revenue	65,625	103,125
Derivative liabilities	4,936,530	4,096,363
Capital lease obligation	212,234	221,345
Notes payable	1,050,000	971,557
Other current liabilities	60,592	588,343
<b>TOTAL CURRENT LIABILITIES</b>	<b>10,482,540</b>	<b>8,725,020</b>
<b>LONG-TERM LIABILITIES</b>		
Notes payable, net of current portion	-	50,000
Capital lease obligation, net of current portion	865,777	1,061,113
Other liabilities	1,755,520	1,758,709
<b>TOTAL LONG-TERM LIABILITIES</b>	<b>2,621,297</b>	<b>2,869,822</b>
Commitments and contingencies		
<b>STOCKHOLDERS' EQUITY</b>		
Arrowhead Research Corporation stockholders' equity:		
Preferred stock, \$0.001 par value; 5,000,000 shares authorized; 21,291 and 9,900 shares issued and outstanding as of March 31, 2014 and September 30, 2013, respectively	21	10
Common stock, \$0.001 par value; 145,000,000 shares authorized; 51,867,071 and 32,489,444 shares issued and outstanding as of March 31, 2014 and September 30, 2013, respectively	144,237	124,859
Additional paid-in capital	381,966,576	193,514,766
Accumulated deficit during the development stage	(190,711,800)	(166,140,969)
<b>Total Arrowhead Research Corporation stockholders' equity</b>	<b>191,399,034</b>	<b>27,498,666</b>
Noncontrolling interest	(1,861,477)	(1,763,877)
<b>TOTAL STOCKHOLDERS' EQUITY</b>	<b>189,537,557</b>	<b>25,734,789</b>
<b>TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY</b>	<b>\$ 202,641,394</b>	<b>\$ 37,329,631</b>

*The accompanying notes are an integral part of these unaudited consolidated financial statements.*

**Arrowhead Research Corporation and Subsidiaries**  
**(A Development Stage Company)**  
**Consolidated Statements of Operations**  
**(unaudited)**

	Three Months ended March 31, 2014	Three Months ended March 31, 2013	Six Months ended March 31, 2014	Six Months ended March 31, 2013	May 7, 2003 (Inception) to March 31, 2014
<b>REVENUE</b>	<b>\$ 43,750</b>	<b>\$ 43,750</b>	<b>\$ 87,500</b>	<b>\$ 202,766</b>	<b>\$ 4,516,600</b>
<b>OPERATING EXPENSES</b>					
Salaries and payroll-related costs	3,097,902	1,725,176	5,179,693	3,354,599	38,239,492
General and administrative expenses	1,347,677	779,970	2,261,461	1,697,646	37,103,540
Research and development	5,216,446	2,125,019	8,349,460	3,701,685	59,673,835
Stock-based compensation	1,198,444	355,108	1,719,582	750,782	16,837,321
Depreciation and amortization	395,779	448,765	799,184	898,362	9,959,882
Impairment expense	-	-	-	-	1,308,047
Contingent consideration - fair value adjustments	-	-	-	-	1,421,652
<b>TOTAL OPERATING EXPENSES</b>	<b>11,256,248</b>	<b>5,434,038</b>	<b>18,309,380</b>	<b>10,403,074</b>	<b>164,543,769</b>
<b>OPERATING LOSS</b>	<b>(11,212,498)</b>	<b>(5,390,288)</b>	<b>(18,221,880)</b>	<b>(10,200,308)</b>	<b>(160,027,169)</b>
<b>OTHER INCOME (EXPENSE)</b>					
Equity in income (loss) of unconsolidated affiliates	(9,597)	(157,612)	(148,053)	(221,169)	(1,752,601)
Impairment of investment in unconsolidated affiliates	-	-	-	-	(1,642,775)
Gain on purchase of Roche Madison	-	-	-	-	1,576,107
Gain (loss) on sale of fixed assets, net	(5,316)	(54,932)	(58,878)	(36,440)	(1,341,731)
Realized and unrealized gain (loss) in marketable securities	-	-	-	-	62,954
Interest income (expense), net	119,390	(27,567)	159,968	(20,151)	2,812,502
Change in value of derivatives	(2,951,225)	(29,403)	(6,470,803)	14,873	(8,489,788)
Gain on sale of stock in subsidiary	-	-	-	-	2,292,800
Other income (expense)	76,546	(1,279,881)	71,215	(1,257,196)	(676,760)
<b>TOTAL OTHER INCOME (EXPENSE)</b>	<b>(2,770,202)</b>	<b>(1,549,395)</b>	<b>(6,446,551)</b>	<b>(1,520,083)</b>	<b>(7,159,292)</b>
<b>LOSS FROM CONTINUING OPERATIONS BEFORE INCOME TAXES</b>	<b>(13,982,700)</b>	<b>(6,939,683)</b>	<b>(24,668,431)</b>	<b>(11,720,391)</b>	<b>(167,186,461)</b>
Provision for income taxes	-	-	-	-	-
<b>LOSS FROM CONTINUING OPERATIONS</b>	<b>(13,982,700)</b>	<b>(6,939,683)</b>	<b>(24,668,431)</b>	<b>(11,720,391)</b>	<b>(167,186,461)</b>
Income (loss) from discontinued operations	-	(336)	-	(354)	(47,546,996)
Gain on disposal of discontinued operations	-	-	-	-	4,708,588
<b>NET INCOME (LOSS) FROM DISCONTINUED OPERATIONS</b>	<b>-</b>	<b>(336)</b>	<b>-</b>	<b>(354)</b>	<b>(42,838,408)</b>
<b>NET LOSS</b>	<b>(13,982,700)</b>	<b>(6,940,019)</b>	<b>(24,668,431)</b>	<b>(11,720,745)</b>	<b>(210,024,869)</b>
Net loss attributable to noncontrolling interests	40,179	182,082	97,600	348,650	19,477,029
<b>NET LOSS ATTRIBUTABLE TO ARROWHEAD</b>	<b>\$ (13,942,521)</b>	<b>\$ (6,757,937)</b>	<b>\$ (24,570,831)</b>	<b>\$ (11,372,095)</b>	<b>\$ (190,547,840)</b>
<b>NET LOSS PER SHARE ATTRIBUTABLE TO ARROWHEAD SHAREHOLDERS - BASIC &amp; DILUTED:</b>	<b>\$ (0.31)</b>	<b>\$ (0.41)</b>	<b>\$ (0.60)</b>	<b>\$ (0.74)</b>	
Weighted average shares outstanding - basic and diluted	<u>44,321,847</u>	<u>16,461,693</u>	<u>40,941,903</u>	<u>15,272,703</u>	

*The accompanying notes are an integral part of these unaudited consolidated financial statements.*

**Arrowhead Research Corporation and Subsidiaries**  
**(A Development Stage Company)**  
**Consolidated Statement of Stockholders' Equity**  
**from inception through March 31, 2014**  
**(unaudited)**

	Common Stock		Preferred Stock		Additional Paid-in Capital	Subscription Receivable	Accumulated Deficit during the Development Stage	Noncontrolling interest	Totals
	Shares	Amount	Shares	Amount					
<b>Initial Issuance of Stock:</b>									
Common stock & warrants issued for cash @ \$0.01 per unit	300,000	\$ 3,000	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000
Common stock & warrants issued for cash @ \$10.00 per unit	168,000	1,680	-	-	1,678,320	-	-	-	1,680,000
Stock issuance cost charged to additional paid-in capital	-	-	-	-	(168,000)	-	-	-	(168,000)
Net loss for period from inception to September 30, 2003	-	-	-	-	-	-	(95,238)	-	(95,238)
<b>Balance at September 30, 2003</b>	<b>468,000</b>	<b>\$ 4,680</b>	<b>-</b>	<b>\$ -</b>	<b>\$ 1,510,320</b>	<b>\$ -</b>	<b>\$ (95,238)</b>	<b>\$ -</b>	<b>\$ 1,419,762</b>
Exercise of stock options	7,500	75	-	-	14,925	-	-	-	15,000
Common stock & warrants issued for cash @ \$10.00 per unit	47,500	475	-	-	474,525	-	-	-	475,000
Common stock & warrants issued for marketable securities @ \$10.00 per unit	50,000	500	-	-	499,500	-	-	-	500,000
Stock issuance cost charged to additional paid-in capital	-	-	-	-	(96,500)	-	-	-	(96,500)
Common stock and warrants issued for cash @ \$15.00 per unit	660,879	6,609	-	-	9,906,573	-	-	-	9,913,182
Common stock issued in reverse acquisition	70,553	706	-	-	(151,175)	-	-	-	(150,469)
Common stock issued as a gift for \$10.90 per share	15,000	163	-	-	162,587	-	-	-	162,750
Common stock and warrants issued as stock issuance cost @ \$15.00 per unit	35,623	356	-	-	533,988	-	-	-	534,344
Stock issuance cost charged to additional paid-in capital	-	-	-	-	(991,318)	-	-	-	(991,318)
Exercise of stock option @ \$2.00 per share	7,500	75	-	-	14,925	-	-	-	15,000
Exercise of stock options @ \$10.00 per share	600	6	-	-	5,994	-	-	-	6,000
Stock-based compensation	-	-	-	-	175,653	-	-	-	175,653
Net loss for the year ended September 30, 2004	-	-	-	-	-	-	(2,528,954)	1,777,699	(751,255)
<b>Balance at September 30, 2004</b>	<b>1,363,155</b>	<b>\$ 13,645</b>	<b>-</b>	<b>\$ -</b>	<b>\$ 12,059,997</b>	<b>\$ -</b>	<b>\$ (2,624,192)</b>	<b>\$ 1,777,699</b>	<b>\$ 11,227,149</b>
Exercise of warrants @ \$15.00 per share	1,381,289	13,813	-	-	20,705,522	-	-	-	20,719,335
Exercise of stock options @ \$10.00 per share	2,500	25	-	-	24,975	-	-	-	25,000
Common stock issued to purchase Insert Therapeutics share @ \$39.80 per share	50,226	502	-	-	1,999,498	-	-	-	2,000,000
Common stock issued for services	1,250	12	-	-	49,988	-	-	-	50,000

	Common Stock		Preferred Stock		Additional Paid-in Capital	Subscription Receivable	Accumulated Deficit during the Development Stage	Noncontrolling interest	Totals
	Shares	Amount	Shares	Amount					
Stock-based compensation	-	-	-	-	508,513	-	-	-	508,513
Change in percentage of ownership in subsidiary	-	-	-	-	230,087	-	-	-	230,087
Net loss for the year ended September 30, 2005	-	-	-	-	-	-	(6,854,918)	121,491	(6,733,427)
<b>Balance at September 30, 2005</b>	<b>2,798,419</b>	<b>\$ 27,997</b>	<b>-</b>	<b>\$ -</b>	<b>\$ 35,578,580</b>	<b>\$ -</b>	<b>\$ (9,479,110)</b>	<b>\$ 1,899,190</b>	<b>\$ 28,026,657</b>
Exercise of stock options	11,579	116	-	-	341,421	-	-	-	341,537
Common stock issued @ \$48.80 per share	20,485	205	-	-	999,795	-	-	-	1,000,000
Common stock issued @ \$38.40 per share	1,500	15	-	-	57,585	-	-	-	57,600
Common stock and warrants issued @ \$35.00 per unit	559,000	5,590	-	-	19,539,410	-	-	-	19,545,000
Common stock issued @ \$59.10 per share	2,536	25	-	-	149,975	-	-	-	150,000
Common stock issued to purchase Calando Pharmaceuticals, Inc. @ \$51.70 per share	20,838	208	-	-	1,077,125	-	-	-	1,077,333
Stock-based compensation	-	-	-	-	1,369,478	-	-	-	1,369,478
Net loss for the year ended September 30, 2006	-	-	-	-	-	-	(18,997,209)	(964,752)	(19,961,961)
<b>Balance at September 30, 2006</b>	<b>3,414,359</b>	<b>\$ 34,156</b>	<b>-</b>	<b>\$ -</b>	<b>\$ 59,113,369</b>	<b>\$ -</b>	<b>\$ (28,476,319)</b>	<b>\$ 934,438</b>	<b>\$ 31,605,644</b>
Exercise of stock options	18,616	186	-	-	434,541	-	-	-	434,727
Common stock and warrants issued @ \$57.80 per unit	284,945	2,849	-	-	15,149,366	-	-	-	15,152,215
Arrowhead's increase in proportionate share of Insert Therapeutics' equity	-	-	-	-	2,401,394	-	-	-	2,401,394
Common stock issued for purchase of Carbon Nanotechnologies, Inc. @ \$37.70 per share	143,122	1,431	-	-	5,398,569	-	-	-	5,400,000
Stock-based compensation	-	-	-	-	2,175,544	-	-	-	2,175,544
Net loss for the year ended September 30, 2007	-	-	-	-	-	-	(29,931,118)	(781,829)	(30,712,947)
<b>Balance at September 30, 2007</b>	<b>3,861,042</b>	<b>\$ 38,622</b>	<b>-</b>	<b>\$ -</b>	<b>\$ 84,672,783</b>	<b>\$ -</b>	<b>\$ (58,407,437)</b>	<b>\$ 152,609</b>	<b>\$ 26,456,577</b>
Exercise of stock options	10,536	106	-	-	289,921	-	-	-	290,027
Common stock and warrants issued at approximately \$18.00 per unit	386,399	3,867	-	-	6,956,718	-	-	-	6,960,585
Arrowhead's increase in proportionate share of Unidym's equity	-	-	-	-	1,720,962	-	-	-	1,720,962
Common stock issued @ \$27.20 per share to Rice University	5,000	50	-	-	135,950	-	-	-	136,000
Common stock issued @ \$28.30 per share to purchase shares of Unidym, Inc.	7,055	71	-	-	199,929	-	-	-	200,000
Common stock issued @ \$29.50 per share to purchase MASA Energy, LLC	10,505	105	-	-	309,895	-	-	-	310,000
Common stock issued @ \$21.90 per share to Unidym for the acquisition of Nanoconduction	11,416	114	-	-	249,886	-	-	-	250,000
Common stock issued @ \$21.80 per share	1,500	15	-	-	32,685	-	-	-	32,700
Stock-based compensation	-	-	-	-	3,187,397	-	-	-	3,187,397
Net loss for the year ended September 30, 2008	-	-	-	-	-	-	(27,089,030)	(152,609)	(27,241,639)
<b>Balance at September 30, 2008</b>	<b>4,293,452</b>	<b>\$ 42,950</b>	<b>-</b>	<b>\$ -</b>	<b>\$ 97,756,126</b>	<b>\$ -</b>	<b>\$ (85,496,467)</b>	<b>\$ -</b>	<b>\$ 12,302,609</b>

	Common Stock		Preferred Stock		Additional Paid-in Capital	Subscription Receivable	Accumulated Deficit during the Development Stage	Noncontrolling interest	Totals
	Shares	Amount	Shares	Amount					
Common Stock issued @ \$5.50 per share to Unidym stockholder in exchange for Unidym's shares	205,839	2,059	-	-	1,131,617	-	-	-	1,133,676
Common Stock issued @ \$5.20 per share to TEL Ventures in exchange for Unidym's shares	222,222	2,222	-	-	1,156,111	-	-	-	1,158,333
Reclassification of former Unidym mezzanine debt to equity	-	-	-	-	2,000,000	-	-	-	2,000,000
Arrowhead's increase in proportionate share of Calando's equity	-	-	-	-	2,120,250	-	-	-	2,120,250
Common stock and warrants issued @ \$3.00 per unit	919,664	9,197	-	-	2,749,796	-	-	-	2,758,993
Change in percentage ownership in subsidiary	-	-	-	-	16,297	-	-	-	16,297
Stock-based compensation	-	-	-	-	2,676,170	-	-	-	2,676,170
Issuance of Preferred Stock for Subscription in Unidym	-	-	-	-	300,000	(300,000)	-	-	-
Amortization of discount on Unidym Series D Preferred Stock	-	-	-	-	163,960	-	(163,960)	-	-
Net loss for the year ended September 30, 2009	-	-	-	-	-	-	(19,308,392)	-	(19,308,392)
<b>Balance at September 30, 2009</b>	<b>5,641,177</b>	<b>\$ 56,428</b>	<b>-</b>	<b>\$ -</b>	<b>\$ 110,070,327</b>	<b>\$ (300,000.00)</b>	<b>\$ (104,968,819)</b>	<b>\$ -</b>	<b>\$ 4,857,936</b>
Exercise of stock options	688	7	-	-	7,624	-	-	-	7,631
Issuance of Preferred Stock for Subscription in Unidym	-	-	-	-	-	300,000	-	-	300,000
Issuance of Unidym's common stock to minority shareholders	-	-	-	-	245,345	-	-	54,655	300,000
Common stock and warrants issued @ \$6.34 per unit	508,343	5,083	-	-	3,217,813	-	-	-	3,222,896
Common stock and warrants issued @ \$13.12 per unit	659,299	6,593	-	-	7,861,985	-	-	-	7,868,578
Establish derivative liability	-	-	-	-	(4,169,907)	-	-	-	(4,169,907)
Common Stock issued to Calando stockholders in exchange for Calando's shares	122,000	1,220	-	-	(160,667)	-	-	159,447	-
Common Stock issued to Unidym stockholders in exchange for Unidym's shares	15,318	153	-	-	(1,435)	-	-	1,282	-
Stock-based compensation	-	-	-	-	1,582,149	-	-	-	1,582,149
Exercise of warrants	225,189	2,250	-	-	1,063,600	-	-	200	1,066,050
Net loss for the year ended September 30, 2010	-	-	-	-	-	-	(5,774,048)	(1,182,990)	(6,957,038)
<b>Balance at September 30, 2010</b>	<b>7,172,014</b>	<b>\$ 71,734</b>	<b>-</b>	<b>\$ -</b>	<b>\$ 119,716,834</b>	<b>\$ -</b>	<b>\$ (110,742,867)</b>	<b>\$ (967,406)</b>	<b>\$ 8,078,295</b>
Exercise of warrants	8,656	87	-	-	43,192	-	-	-	43,279
Exercise of stock options	2,700	27	-	-	13,857	-	-	-	13,884
Divestiture of Unidym	-	-	-	-	-	-	-	254,275	254,275
Issuance of preferred stock in subsidiary	-	-	-	-	1,618,509	-	-	-	1,618,509
Change in percentage of ownership in subsidiary	-	-	-	-	(849,707)	-	-	849,707	-
Stock-based compensation	-	-	-	-	1,404,640	-	-	-	1,404,640
Common stock issued @ \$3.80 per share	1,458,917	14,574	-	-	4,629,110	-	-	-	4,643,684
Issuance of Common Stock for Subscription	-	-	-	-	900,000	(900,000)	-	-	-

	Common Stock		Preferred Stock		Additional Paid-in Capital	Subscription Receivable	Accumulated Deficit during the Development Stage	Noncontrolling interest	Totals
	Shares	Amount	Shares	Amount					
Net loss for the year ended September 30, 2011	-	-	-	-	-	-	(3,128,885)	(363,514)	(3,492,399)
<b>Balance at September 30, 2011</b>	<b>8,642,286</b>	<b>\$ 86,422</b>	<b>-</b>	<b>\$ -</b>	<b>\$ 127,476,436</b>	<b>\$ (900,000.00)</b>	<b>\$ (113,871,752)</b>	<b>\$ (226,938)</b>	<b>\$ 12,564,167</b>
Exercise of stock options	4,583	45	-	-	23,788	-	-	-	23,833
Stock-based compensation	-	-	-	-	1,241,404	-	-	-	1,241,404
Common stock issued @ \$3.80 per share	138,158	1,382	-	-	523,618	(100,000)	-	-	425,000
Common stock issued @ \$3.70 per share	675,000	6,750	-	-	2,241,000	-	-	-	2,247,750
Common stock issued @ \$4.00 per share	100,000	1,000	-	-	399,000	-	-	-	400,000
Common stock issued @ \$6.23 per share	83,211	83	-	-	499,918	-	-	-	500,001
Common stock issued @ \$5.11 per share	97,831	98	-	-	499,903	-	-	-	500,001
Common stock and warrants issued @ \$2.76 per unit	2,260,869	2,261	-	-	5,809,979	(16,000)	-	-	5,796,240
Common stock issued under Committed Capital Agreement	68,926	689	-	-	(689)	-	-	-	-
Common stock issued in acquisitions	1,217,159	9,332	-	-	6,138,498	-	-	-	6,147,830
Fractional shares redeemed in reverse stock split	(131)	-	-	-	-	-	-	-	-
Preferred stock issued @ \$1,000 per share	-	-	1,015	1	1,014,999	-	-	-	1,015,000
Preferred stock converted to common stock	275,782	276	(1,015)	(1)	(275)	-	-	-	-
Exercise of Calando stock options	-	-	-	-	-	-	-	8,000	8,000
Exercise of warrants	15,511	16	-	-	50,390	-	-	-	50,406
Net loss for the year ended September 30, 2012	-	-	-	-	-	-	(21,125,928)	(984,795)	(22,110,723)
<b>Balance at September 30, 2012</b>	<b>13,579,185</b>	<b>\$ 108,354</b>	<b>-</b>	<b>\$ -</b>	<b>145,917,968</b>	<b>\$ (1,016,000.00)</b>	<b>\$ (134,997,680)</b>	<b>\$ (1,203,733)</b>	<b>\$ 8,808,909</b>
Exercise of warrants	1,182,451	1,183	-	-	2,053,416	-	-	-	2,054,599
Exercise of stock options	675	1	-	-	2,578	-	-	-	2,579
Stock-based compensation	-	-	-	-	1,536,271	-	-	-	1,536,271
Subscription payment	-	-	-	-	-	16,000	-	-	16,000
Subscription reversal	(267,444)	(2,674)	-	-	(997,326)	1,000,000	-	-	-
Common stock issued @ \$4.49 per share to Roche	239,894	240	-	-	985,809	-	-	-	986,049
Common stock and warrants issued @ \$2.26 per unit	1,825,079	1,825	-	-	3,814,643	-	-	-	3,816,468
Common stock and warrants issued @ \$2.12 per unit	1,667,051	1,667	-	-	3,255,192	-	-	-	3,256,859
Common stock and warrants issued @ \$1.83 per unit	14,262,553	14,263	-	-	25,445,236	-	-	-	25,459,499
Settlements related to derivative liability	-	-	-	-	1,600,989	-	-	-	1,600,989
Preferred stock issued @ 1,000 per share	-	-	9,900	10	9,899,990	-	-	-	9,900,000
Net loss for the year ended September 30, 2013	-	-	-	-	-	-	(31,143,289)	(560,144)	(31,703,433)
<b>Balance at September 30, 2013</b>	<b>32,489,444</b>	<b>\$ 124,859</b>	<b>9,900</b>	<b>\$ 10</b>	<b>193,514,766</b>	<b>\$ -</b>	<b>\$ (166,140,969)</b>	<b>\$ (1,763,877)</b>	<b>\$ 25,734,789</b>
Exercise of warrants	1,869,005	1,869	-	-	5,738,785	-	-	-	5,740,654
Exercise of stock options	342,338	342	-	-	2,238,314	-	-	-	2,238,656
Stock-based compensation	-	-	-	-	1,719,582	-	-	-	1,719,582
Common stock issued @ \$5.86	3,071,672	3,072	-	-	14,057,040	-	-	-	14,060,112



	Common Stock		Preferred Stock		Additional Paid- in Capital	Subscription Receivable	Accumulated Deficit during the Development Stage	Noncontrolling interest	Totals
	Shares	Amount	Shares	Amount					
Common stock issued @ \$18.95	6,325,000	6,325	-	-	112,575,234	-	-	-	112,581,559
Preferred stock issued @ \$1,000 per share	-	-	46,000	46	45,999,954	-	-	-	46,000,000
Common stock issued to Galloway	131,579	132	-	-	499,868	-	-	-	500,000
Settlements related to derivative liability	-	-	-	-	5,630,636	-	-	-	5,630,636
Preferred stock converted to common stock	7,638,033	7,638	(34,609)	(35)	(7,603)	-	-	-	-
Net loss for the six months ended March 31, 2014	-	-	-	-	-	-	(24,570,831)	(97,600)	(24,668,431)
<b>Balance at March 31, 2014</b>	<b>51,867,071</b>	<b>\$ 144,237</b>	<b>21,291</b>	<b>\$ 21</b>	<b>\$ 381,966,576</b>	<b>\$ -</b>	<b>\$ (190,711,800)</b>	<b>\$ (1,861,477)</b>	<b>\$ 189,537,557</b>

*The accompanying notes are an integral part of these unaudited consolidated financial statements.*

**Arrowhead Research Corporation and Subsidiaries**  
**(A Development Stage Company)**  
**Consolidated Statements of Cash Flows**  
**(unaudited)**

	Six months ended March 31, 2014	Six months ended March 31, 2013	May 7, 2003 (Date of inception) to March 31, 2014
<b>CASH FLOWS FROM OPERATING ACTIVITIES OF CONTINUING OPERATIONS:</b>			
Net loss	\$ (24,668,431)	\$ (11,720,745)	\$ (210,024,869)
Net (income) loss attributable to noncontrolling interests	97,600	348,650	19,477,029
Net income (loss) attributable to Arrowhead	(24,570,831)	(11,372,095)	(190,547,840)
(Income) loss from discontinued operations	-	354	42,838,408
Realized and unrealized (gain) loss on investments	-	-	(762,954)
Charge for bad debt allowance	-	-	2,497,300
(Gain) loss from sale of subsidiary	-	-	(306,344)
(Gain) loss on purchase of Roche Madison	-	-	(1,576,107)
(Gain) loss on disposal of fixed assets	58,878	36,440	1,341,731
Stock issued for professional services	-	-	741,632
Change in value of derivatives	6,470,803	(14,873)	8,489,788
Contingent consideration - fair value adjustments	-	-	1,421,652
Purchased in-process research and development	-	-	15,851,555
Stock-based compensation	1,719,582	750,782	16,837,321
Depreciation and amortization	799,184	898,362	9,959,882
Amortization (accretion) of note discounts, net	269,313	36,931	399,171
Gain on sale of stock in subsidiary	-	-	(2,292,800)
Noncash impairment expense	-	1,279,882	3,958,496
Equity in income (loss) of unconsolidated affiliates	-	221,169	963,407
Noncontrolling interest	(97,600)	(348,650)	(19,477,029)
Changes in operating assets and liabilities:			
Receivables	75,000	9,375	109,415
Other receivables	(611,360)	1,080	(3,153,422)
Prepaid expenses	(69,608)	191,732	(505,994)
Other current assets	(136,403)	(214,318)	(301,969)
Accounts payable	1,311,947	(6,279)	2,131,904
Accrued expenses	275,370	199,242	1,024,199
Other liabilities	(214,329)	26,516	727,922
<b>NET CASH USED IN OPERATING ACTIVITIES OF CONTINUING OPERATIONS</b>	<b>(14,720,054)</b>	<b>(8,304,350)</b>	<b>(109,630,676)</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES OF CONTINUING OPERATIONS:</b>			
Purchases of property and equipment	(607,772)	(31,468)	(4,949,961)
Proceeds from sale of investments	-	1,160,181	4,732,688
Proceeds from sale of fixed assets	-	129,454	522,192
Purchase of marketable securities	(46,365,528)	-	(75,674,014)
Proceeds from sale of marketable securities	5,010,238	-	23,898,503
Cash transferred in acquisitions/divestitures	-	-	(1,579,365)
Purchase of MASA Energy, LLC	-	-	(250,000)
Minority equity investment	-	-	(2,000,000)
Cash paid for interest in Insert	-	-	(10,150,000)
Cash obtained from interest in Insert	-	-	10,529,594
Proceeds from sale of subsidiaries	-	-	359,375
Payment for patents	-	-	(303,440)
Restricted cash	-	-	50,773
<b>NET CASH PROVIDED BY (USED IN) INVESTING ACTIVITIES OF CONTINUING OPERATIONS</b>	<b>(41,963,062)</b>	<b>1,258,167</b>	<b>(54,813,655)</b>

	Six months ended March 31, 2014	Six months ended March 31, 2013	May 7, 2003 (Date of inception) to March 31, 2014
<b>CASH FLOWS FROM FINANCING ACTIVITIES OF CONTINUING OPERATIONS:</b>			
Principal payments on capital leases	(204,448)	(106,595)	(615,855)
Proceeds from issuance of common stock, preferred stock and warrants, net	180,620,980	7,089,327	331,379,995
Proceeds from issuance of Calando debt	-	-	2,516,467
Proceeds from sale of stock in subsidiary	-	-	20,902,100
<b>NET CASH PROVIDED BY FINANCING ACTIVITIES OF CONTINUING OPERATIONS</b>	<b>180,416,532</b>	<b>6,982,732</b>	<b>354,182,707</b>
Cash flows from discontinued operations:			
Operating cash flows	-	(354)	(46,004,141)
Investing cash flows	-	-	790,625
Financing cash flows	-	-	(1,677,000)
Net cash provided by (used in) discontinued operations:	-	(354)	(46,890,516)
<b>NET INCREASE (DECREASE) IN CASH</b>	<b>123,733,416</b>	<b>(63,805)</b>	<b>142,847,860</b>
CASH AT BEGINNING OF PERIOD	19,114,444	3,377,288	-
<b>CASH AT END OF PERIOD</b>	<b>\$ 142,847,860</b>	<b>\$ 3,313,483</b>	<b>\$ 142,847,860</b>
Supplementary disclosures:			
Interest paid	\$ 17,105	\$ 21,828	\$ 339,837
Taxes paid	\$ -	\$ -	\$ 742,500

*The accompanying notes are an integral part of these unaudited consolidated financial statements.*

## SUPPLEMENTARY NON CASH TRANSACTIONS

All Arrowhead share amounts have been adjusted to reflect the 1 for 10 reverse stock split effected on November 17, 2011.

On February 18, 2014, Arrowhead issues 131,579 shares of Common Stock to Galloway Limited, in settlement of a services agreement dated September 30, 2011.

On March 23, 2005, Arrowhead purchased 7,375,000 shares of Insert Therapeutics, Inc. common stock from two minority stockholders of Insert for 50,226 newly issued shares of Arrowhead Common Stock valued at \$2,000,000 based on the closing market price of Arrowhead Common Stock on NASDAQ on the date of the closing.

On March 31, 2006, Arrowhead purchased 964,000 shares of Calando Pharmaceuticals, Inc. common stock from minority stockholders of Calando for \$1,928,000 consisting of 20,838 newly issued shares of Arrowhead Common Stock valued at \$1,077,333 plus \$850,667 in cash. The 20,838 shares of Arrowhead Common Stock were valued based on the average closing price of Arrowhead's Common Stock on NASDAQ the ten trading days immediately prior to the date of the closing.

On April 20, 2007, Arrowhead purchased the Series E Preferred Stock of Carbon Nanotechnologies, Inc. in exchange for 143,122 shares of Arrowhead Common Stock with an estimated fair market value of \$5,400,000 based on the average closing price of Arrowhead's Common Stock on NASDAQ the ten trading days immediately prior to March 24, 2007, as set forth in the Agreement and Plan of Merger among Unidym, Carbon Nanotechnologies, Inc., Arrowhead, and others.

On April 23, 2008, Arrowhead purchased 200,000 shares of the Common Stock of Unidym Inc., in exchange for 7,054 shares of Arrowhead Common Stock with an estimated fair market value of \$200,000 based on the average closing price of Arrowhead's Common Stock on NASDAQ the ten trading days immediately prior to the date of the closing.

On April 29, 2008, Arrowhead purchased all of the membership units of MASA Energy, LLC for \$560,000. The purchase price consisted of 10,504 shares of Arrowhead Common Stock with an estimated fair market value of \$310,000 based on the average closing price of Arrowhead's Common Stock on NASDAQ the ten trading days immediately prior to the date of the closing, plus \$250,000 in cash.

On August 8, 2008, Unidym acquired all of the outstanding stock of Nanoconduction, Inc. in exchange for 11,411 shares of Arrowhead stock with an estimated fair market value of \$250,000.

On June 11, 2009, Arrowhead issued 132,462 shares of Common Stock with an estimated fair market value of \$688,802 in exchange for an equal number of Series A Preferred Stock of Unidym, with minority stockholders of Unidym.

On June 25, 2009, Arrowhead issued 194,444 shares of Common Stock with an estimated fair market value of \$972,222 in exchange for an equal number of Series C Preferred Stock of Unidym, with a minority stockholder of Unidym.

On September 22, 2009, Arrowhead issued 9,149 shares of Common Stock with an estimated fair market value of \$46,662 in exchange for an equal number of Series A Preferred Stock of Unidym with a minority stockholder of Unidym.

On September 28, 2009, Arrowhead issued 64,227 shares of Common Stock with an estimated fair market value of \$398,209 in exchange for 5,574 shares of Series A Preferred Stock and 636,699 shares of Series C Preferred Stock of Unidym, with several minority stockholders of Unidym.

On September 30, 2009, Arrowhead issued 27,777 shares of Common Stock with an estimated fair market value of \$186,111 in exchange for an equal number of Series C-1 Preferred Stock of Unidym, with a minority stockholder of Unidym.

In October and November 2009, Arrowhead issued 15,317 shares of Common Stock with an estimated fair market value of \$47,485 in exchange for an equal number of shares of Series C Preferred Stock of Unidym, with several minority stockholders of Unidym.

In October and November 2009, Arrowhead issued 114,000 shares of Common Stock with an estimated fair market value of \$706,800 in exchange for 2,850,000 shares of Calando's common stock, with several minority stockholders of Calando. In conjunction with the exchange, Arrowhead also issued 24,000 Warrants to purchase Arrowhead Common Stock in exchange for 600,000 Warrants to purchase Calando common stock.

In February 2010, Arrowhead issued 8,000 shares of Common Stock and 2,400 warrants to purchase Arrowhead Common Stock, at an exercise price of \$5.00, to several Calando shareholders, in exchange for 200,000 shares of Calando common stock and 60,000 warrants to purchase Calando common stock.

In March 2010, a warrant holder exercised 24,788 warrants to purchase Arrowhead Common Stock, in a cashless exercise, whereby Arrowhead issued to the warrant holder 12,870 shares of Arrowhead Common Stock.

In September 2010, Arrowhead issued warrants to purchase 390,625 shares of Arrowhead Common Stock, at an exercise price of \$5.00, to two Calando shareholders, in exchange for 1,562.5 shares of Series A Preferred Stock of Calando Pharmaceuticals, Inc.

On October 21, 2011, Arrowhead entered into a Stock and Asset Purchase Agreement whereby it acquired all of the outstanding common stock of Roche Madison Inc. and certain intellectual property rights in exchange for 1,288,158 shares of Arrowhead Common Stock, a promissory note of \$50,000, and potential contingent consideration based on the achievement of certain regulatory milestones, and sales milestones and royalty payments after drug approval.

On April 5, 2012, Arrowhead entered into a Stock Purchase Agreement whereby it acquired all of the outstanding common stock of Alvos Therapeutics, Inc. for 315,457 shares of Arrowhead Common Stock and potential contingent consideration based on the achievement of certain clinical, regulatory and sales milestones.

On October 21, 2012, Arrowhead issued 239,894 shares of Common Stock to Roche in accordance with the terms of the Stock and Asset Purchase Agreement for Roche Madison Inc., to settle a liability of \$986,049, which the Company had recorded upon the acquisition.

**Arrowhead Research Corporation**  
**Notes to Consolidated Financial Statements**  
**(unaudited)**

Unless otherwise noted, (1) the term “Arrowhead” refers to Arrowhead Research Corporation, a Delaware corporation, (2) the terms the “Company,” “we,” “us,” and “our,” refer to the ongoing business operations of Arrowhead and its Subsidiaries, whether conducted through Arrowhead or a subsidiary of Arrowhead, (3) the term “Subsidiaries” refers collectively to Arrowhead Madison Inc. (“Madison”), Calando Pharmaceuticals, Inc. (“Calando”), Ablaris Therapeutics, Inc. (“Ablaris”), and Tego Biosciences Corporation (“Tego”), as well as our former subsidiary, Unidym, Inc. (“Unidym”), which was divested in January 2011, and Alvos Therapeutics, Inc. (“Alvos”) and Agonn Systems, Inc. (“Agonn”), which were merged into Arrowhead during 2013. (4) the term “Minority Investments” refers collectively to Nanotope, Inc. (“Nanotope”), which was dissolved during 2013, and Leonardo Biosystems, Inc. (“Leonardo”) in which the company holds a less than majority ownership position, (5) the term “Common Stock” refers to Arrowhead’s Common Stock, (6) the term “Preferred Stock” refers to Arrowhead’s Preferred Stock and the term “Stockholder(s)” refers to the holders of Arrowhead Common Stock.

**NOTE 1. ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES**

*Nature of Business*

Arrowhead Research Corporation is a biopharmaceutical company developing targeted RNAi therapeutics. The Company is leveraging its proprietary drug delivery technologies to develop targeted drugs based on the RNA interference mechanism that efficiently silence disease-causing genes. Arrowhead technologies also enable partners to create peptide-drug conjugates that specifically home to cell types of interest while sparing off-target tissues. Arrowhead’s pipeline includes clinical programs in chronic hepatitis B virus and obesity and partner-based programs in oncology.

*Liquidity*

Historically, the Company’s primary source of financing has been through the sale of securities of Arrowhead. Research and development activities have required significant capital investment since the Company’s inception and we expect our operations to continue to require cash investment in fiscal 2014 and beyond as the Company advances its research and development efforts, including clinical trials, and related drug manufacturing.

At March 31, 2014, the Company had \$142.8 million in cash to fund operations. In addition to its cash resources, the Company has invested excess cash in investment grade commercial bonds maturing in less than 30 months. These bonds provide a source of liquidity, though the Company plans to hold them until maturity. At March 31, 2014, the Company had invested \$51.8 million in bonds. During the six months ended March 31, 2014, the Company’s cash position increased by \$123.7 million. The Company received cash from the issuance of equity of \$172.6 million and cash from the exercise of warrants and options of \$8.0 million during the six months ended March 31, 2014. Net cash invested in fixed income investments totaled a net change of \$41.4 million. During the six months ended March 31, 2014, the Company had cash outflow of \$14.7 million related to its continuing operating activities and capital expenditures of \$0.6 million.

*Summary of Significant Accounting Policies*

**Principles of Consolidation**—The consolidated financial statements include the accounts of Arrowhead and its Subsidiaries. Arrowhead’s primary operating subsidiary is Arrowhead Madison, which is located in Madison, Wisconsin, where the Company’s research and development facilities are located. All significant intercompany accounts and transactions are eliminated in consolidation, and noncontrolling interests are accounted for in the Company’s financial statements.

**Basis of Presentation**—The accompanying unaudited consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (“GAAP”) for interim financial information and in accordance with the instructions to Form 10-Q and Article 8 of Regulation S-X. Accordingly, the financial statements do not include all of the information and notes required by GAAP for complete financial statements. In the opinion of management, all adjustments, including normal recurring accruals, considered necessary for a fair presentation have been included. Interim results are not necessarily indicative of results for a full year. The September 30, 2013 balance sheet was derived from audited financial statements, but does not include all disclosures required by GAAP. This financial information should be read in conjunction with the consolidated financial statements and notes included in the Company’s Annual Report on Form 10-K for the year ended September 30, 2013. Certain reclassifications have been made to prior period financial statements to conform to the current period presentation.

Use of Estimates—The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the accompanying financial statements. Actual results could differ from those estimates.

Cash and Cash Equivalents—The Company considers all liquid debt instruments purchased with a maturity of three months or less to be cash equivalents. The Company had no restricted cash at March 31, 2014 and 2013.

Concentration of Credit Risk—The Company maintains several checking accounts for its operations at two financial institutions. These accounts are insured by the Federal Deposit Insurance Corporation (FDIC) for up to \$250,000 per account. Management believes the Company is not exposed to significant credit risk due to the financial position of the depository institutions in which these deposits are held.

Investments—The Company invests excess cash balances in short-term and long-term marketable debt securities. Investments may consist of certificates of deposits, money market accounts, government-sponsored enterprise securities, corporate bonds and/or commercial paper. The Company accounts for its investment in marketable securities in accordance with FASB ASC 320, Investments – Debt and Equity Securities. This statement requires certain securities to be classified into three categories:

Held-to-maturity—Debt securities that the entity has the positive intent and ability to hold to maturity are reported at amortized cost.

Trading Securities—Debt and equity securities that are bought and held primarily for the purpose of selling in the near term are reported at fair value, with unrealized gains and losses included in earnings.

Available-for-Sale—Debt and equity securities not classified as either securities held-to-maturity or trading securities are reported at fair value with unrealized gains or losses excluded from earnings and reported as a separate component of shareholders' equity.

The Company classifies its investments in marketable debt securities based on the facts and circumstances present at the time of purchase of the securities. At March 31, 2014, the Company classified all of its investments as held-to-maturity.

Held-to-maturity investments are measured and recorded at amortized cost on the Company's Consolidated Balance Sheet. Discounts and premiums to par value of the debt securities are amortized to interest income/expense over the term of the security. No gains or losses on investment securities are realized until they are sold or a decline in fair value is determined to be other-than-temporary.

As of March 31, 2014, all short-term investments were comprised of corporate bonds with maturity dates of less than one year. Certain investments maturing in excess of twelve months, but less than 30 months are classified as long-term investments. As of March 31, 2014, the amortized cost of such bonds was \$51,846,834. As of March 31, 2014, gross unrealized losses were \$283,376; there were no gross unrealized gains. The total fair value of the investments at March 31, 2014 was \$51,563,458.

See further information regarding fair market value of marketable debt securities in Note 11 – Fair Value Measurements, such fair market data is obtained from independent pricing services.

Property and Equipment—Property and equipment are recorded at cost, which may equal fair market value in the case of property and equipment acquired in conjunction with a business acquisition. Depreciation of property and equipment is recorded using the straight-line method over the respective useful lives of the assets ranging from three to seven years. Leasehold improvements are amortized over the lesser of the expected useful life or the remaining lease term. Long-lived assets, including property and equipment are reviewed for impairment whenever events or circumstances indicate that the carrying amount of these assets may not be recoverable.

Intangible Assets Subject to Amortization—At March 31, 2014, intangible assets subject to amortization included certain license agreements acquired through business combinations. Intangible assets subject to amortization are reviewed for impairment whenever events or circumstances indicate that the carrying amount of these assets may not be recoverable.

In-Process Research & Development (IPR&D)—IPR&D assets represent capitalized on-going research projects that Arrowhead acquired through business combinations. Such assets are initially measured at their acquisition date fair values. The amounts capitalized are being accounted for as indefinite-lived intangible assets, subject to impairment testing until completion or abandonment of R&D efforts associated with the project. Upon successful completion of a project, Arrowhead will make a determination as to the then remaining useful life of the intangible asset and begin amortization. Based on early adoption of ASU 2012-02, Arrowhead tests its indefinite-lived assets for impairment at least annually, through a two-step process. The first step is a qualitative assessment to determine if it is more likely than not that the indefinite lived assets are impaired. Arrowhead considers relevant events and circumstances that could affect the inputs used to determine the fair value of the intangible assets. If the qualitative assessment indicates that it is more likely than not that the intangible assets is impaired, a second step is performed which is a quantitative test to determine the fair value of the intangible asset. If the carrying amount of the intangible assets exceeds its fair value, an impairment loss is recorded in the amount of that excess. If circumstances determine that it is appropriate, the Company may also elect to bypass step one, and proceed directly to the second step.

Contingent Consideration - The consideration for our acquisitions often includes future payments that are contingent upon the occurrence of a particular event. For example, milestone payments might be based on the achievement of various regulatory approvals or future sales milestones, and royalty payments might be based on drug product sales levels. We record a contingent consideration obligation for such contingent payments at fair value on the acquisition date. We estimate the fair value of contingent consideration obligations through valuation models designed to estimate the probability of such contingent payments based on various assumptions and incorporating estimated success rates. Estimated payments are discounted using present value techniques to arrive at estimated fair value at the balance sheet date. Changes in the fair value of our contingent consideration obligations are recognized within our consolidated statements of operations. Changes in the fair value of the contingent consideration obligations can result from changes to one or multiple inputs, including adjustments to the discount rates, changes in the amount or timing of expected expenditures associated with product development, changes in the amount or timing of cash flows from products upon commercialization, changes in the assumed achievement or timing of any development milestones, changes in the probability of certain clinical events and changes in the assumed probability associated with regulatory approval. These fair value measurements are based on significant inputs not observable in the market. Significant judgment is employed in determining the appropriateness of these assumptions as of the acquisition date and for each subsequent period. Accordingly, changes in assumptions could have a material impact on the amount of contingent consideration expense we record in any given period.

Minority Equity Investments—The Company's had a minority equity investment in Leonardo, a privately held biotechnology company. This investment has been fully impaired and the net book value at March 31, 2014 is \$0. The operations of Leonardo ceased in December 2013.

Noncontrolling Interests in Majority-Owned Subsidiaries—Operating losses applicable to majority-owned Calando, Ablaris and, prior to its disposal, Unidym have periodically exceeded the noncontrolling interests in the equity capital of either Subsidiary. Such excess losses applicable to the noncontrolling interests have been and are borne by the Company as there is no obligation of the noncontrolling 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. The Company allocates the noncontrolling interest's share of net loss in excess of the noncontrolling interest's initial investment in accordance with FASB ASC 810-10.

When there is a change in the Company's proportionate ownership share of a development-stage Subsidiary resulting from additional equity transactions in 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 transaction, 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.

Revenue Recognition—Revenue from license fees are recorded when persuasive evidence of an arrangement exists, title has passed or services have been rendered, a price is fixed and determinable, and collection is reasonably assured. We may generate revenue from product sales, technology licenses, collaborative research and development arrangements, and research grants. Revenue under technology licenses and collaborative agreements typically consists of nonrefundable and/or guaranteed technology license fees, collaborative research funding and various milestone and future product royalty or profit-sharing payments.

Revenue associated payments under collaborative research and development agreements, is recognized ratably over the relevant periods specified in the agreement, generally the period during which research and development is conducted. Revenue from up-front license fees, milestones and product royalties are recognized as earned based on the completion of the milestones and product sales, as defined in the respective agreements. Payments received in advance of recognition as revenue are recorded as deferred revenue.



Allowance for Doubtful Accounts—The Company accrues an allowance for doubtful accounts based on estimates of uncollectible revenues by analyzing historical collections, accounts receivable aging and other factors. Accounts receivable are written off when all collection attempts have failed.

Research and Development—Costs and expenses that can be clearly identified as research and development are charged to expense as incurred in accordance with FASB ASC 730-10.

Earnings (Loss) per Share—Basic earnings (loss) per share is computed using the weighted-average number of common shares outstanding during the period. Diluted earnings (loss) per share are computed using the weighted-average number of common shares and dilutive potential common shares outstanding during the period. Dilutive potential common shares primarily consist of stock options issued to employees and consultants and warrants to purchase Common Stock of the Company.

Stock-Based Compensation—The Company accounts for share-based compensation arrangements in accordance with FASB ASC 718, which requires the measurement and recognition of compensation expense for all share-based payment awards to be based on estimated fair values. We use the Black-Scholes option valuation model to estimate the fair value of our stock options at the date of grant. The Black-Scholes option valuation model requires the input of subjective assumptions to calculate the value of stock options. We use historical data and other information to estimate the expected price volatility and the expected forfeiture rate.

Derivative Assets and Liabilities - We account for warrants and other derivative financial instruments as either equity or assets/liabilities based upon the characteristics and provisions of each instrument. Warrants classified as equity are recorded as additional paid-in capital on our consolidated balance sheet and no further adjustments to their valuation are made. Some of our warrants were determined to be ineligible for equity classification because of provisions that may result in an adjustment to their exercise price. Warrants classified as derivative liabilities and other derivative financial instruments that require separate accounting as assets or liabilities are recorded on our consolidated balance sheet at their fair value on the date of issuance and are revalued on each subsequent balance sheet date until such instruments are exercised or expire, with any changes in the fair value between reporting periods recorded as other income or expense. We estimate the fair value of these assets/liabilities using option pricing models that are based on the individual characteristics of the warrants or instruments on the valuation date, as well as assumptions for expected volatility, expected life and risk-free interest rate.

Income Taxes—The Company accounts for income taxes under the liability method, which requires the recognition of deferred income tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements or tax returns. Under this method, deferred income taxes are recognized for the tax consequences in future years of differences between the tax bases of assets and liabilities and their financial reporting amounts at each period end based on enacted tax laws and statutory tax rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established, when necessary, to reduce deferred income tax assets to the amount expected to be realized. The provision for income taxes, if any, represents the tax payable for the period and the change in deferred income tax assets and liabilities during the period.

#### **Recently Issued Accounting Standards**

In July 2013, the FASB issued ASU 2013-11, *Income Taxes (Topic 740): Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists*, which eliminates diversity in practice for the presentation of an unrecognized tax benefit when a net operating loss carryforward, a similar tax loss or a tax credit carryforward is available to reduce the taxable income or tax payable that would result from disallowance of a tax position. ASU 2013-11 affects only the presentation of such amounts in an entity's balance sheet and is effective for fiscal years beginning after December 15, 2013 and interim periods within those years. Early adoption is permitted. We are evaluating the impact, if any, of the adoption of ASU 2013-11 on our balance sheet.

#### **NOTE 2. INVESTMENTS**

The Company invests its excess cash balances in short-term and long-term debt securities. Investments at March 31, 2014 consisted of corporate bonds with maturities remaining of less than three years at the time of purchase. The Company may also invest excess cash balances in certificates of deposit, money market accounts, US Treasuries, US government agency obligations, corporate debt securities, and/or commercial paper. The Company accounts for its investments in accordance with FASB ASC 320, Investments – Debt and Equity Securities. At March 31, 2014, all investments were classified as held-to-maturity securities.

The following tables summarize the Company's short and long-term investments as of March 31, 2014, and September 30, 2013.

	As of March 31, 2014			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Commercial notes (due within one year)	\$ 17,798,475	\$ —	\$ (115,181)	\$ 17,683,294
Commercial notes (due after one year through two years)	\$ 34,048,359	—	\$ (168,195)	\$ 33,880,164
<b>Total</b>	<b>\$ 51,846,834</b>	<b>\$ —</b>	<b>\$ (283,376)</b>	<b>\$ 51,563,458</b>

	As of September 30, 2013			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Commercial notes (due within one year)	\$ 9,030,261	\$ 7,500	\$ (39,281)	\$ 8,998,480
Commercial notes (due after one year through two years)	\$ 1,702,153	—	\$ (2,362)	\$ 1,699,791
<b>Total</b>	<b>\$ 10,732,414</b>	<b>\$ 7,500</b>	<b>\$ (41,643)</b>	<b>\$ 10,698,271</b>

### NOTE 3. FIXED ASSETS

Property, equipment and other fixed assets are recorded at cost, which may equal fair market value in the case of property and equipment acquired in conjunction with a business acquisition. Depreciation of property and equipment is recorded using the straight-line method over the respective useful lives of the assets ranging from three to seven years. Leasehold improvements are amortized over the lesser of the expected useful life or the remaining lease term.

	Balance as of	
	March 31, 2014	September 30, 2013
Computers, office equipment and furniture	317,867	323,376
Research equipment	3,826,494	3,452,013
Software	69,623	69,623
Leasehold improvements	2,749,409	2,749,409
<b>Total gross fixed assets</b>	<b>6,963,393</b>	<b>6,594,421</b>
Less: Accumulated depreciation and amortization	(3,673,123)	(3,081,186)
<b>Property and equipment, net</b>	<b>3,290,270</b>	<b>3,513,235</b>

### NOTE 4. ACQUISITIONS

#### Roche Madison

On October 21, 2011, the Company entered into a Stock and Asset Purchase Agreement (the "RNAi Purchase Agreement") with Hoffmann-La Roche Inc. and F Hoffmann-La Roche Ltd (collectively, "Roche"), pursuant to which the Company purchased from Roche (i) all of the outstanding common stock of Roche Madison Inc. ("Roche Madison", now "Arrowhead Madison") and (ii) the intellectual property rights then held by Roche related to its RNAi business and identified in the RNAi Purchase Agreement (the "Transaction"). In consideration for the purchase of Roche Madison and the Roche RNAi assets, the Company issued to Roche a promissory note with a principal value of \$50,000 and 1,288,158 shares of Common Stock.

Pursuant to the RNAi Purchase Agreement, Roche has a right of first negotiation on certain product candidates developed by the Company and its affiliates relating to the purchased assets. If the Company proposes to out-license or enters into substantive negotiations to out-license, any Clinical Candidate or Existing Candidate (as such terms are defined in the RNAi Purchase Agreement), the Company must give notice of the Candidate it proposes to out-license and negotiate exclusively and in good faith with Roche for 90 days regarding the applicable out-license. This right of first negotiation applies to all Existing Candidates (as defined in the RNAi Purchase Agreement) and the first five Clinical Candidates for which the Company delivers notice to Roche and subsequently enters into an out-license.

In addition to the consideration paid by the Company as per the closing terms, the Company is obligated to make certain royalty and milestone payments to Roche upon the occurrence of certain events. For certain product candidates that are developed by the Company that are covered by a valid claim by the patent rights transferred in the Transaction for which the Company and Roche do

not enter into a licensing arrangement, the Company will be obligated to pay a 3% royalty on Net Sales (as defined in the RNAi Purchase Agreement), provided that the royalty rate may be reduced or offset in certain circumstances. The obligation to pay royalties on such candidates will last until the later of (i) the expiration of the last to expire patent right related to such product candidate that was transferred in the Transaction and (ii) ten years after the first commercial sale of such product candidate.

The Company will also be obligated to make cash payments to Roche upon the achievement of various milestones for certain clinical candidates, for which the Company and Roche do not enter into a licensing arrangement, including the first regulatory approval in certain jurisdictions, and upon certain annual sales milestones for candidates that receive regulatory approval. The potential payments range from \$2,500,000 to \$6,000,000 per milestone. At the time of acquisition, the Company's estimate of future payments for potential royalties and milestones had a net present value of \$84,935 which was recorded as contingent consideration as a part of other noncurrent liabilities. Contingent consideration is calculated by modeling research and development activities for clinical candidates, forecasting timelines to market, and using "peak sales" estimate modeling, cash flows and potential milestone and royalty payments are calculated. The modeling assumes certain success rates, and discount factors related to riskiness of projects and the time value of money to calculate a net present value of future consideration payments to Roche. These estimates are based on many unknown variables that are difficult to estimate, and due to the extended process of drug development prior to marketing of drug candidates, the models must extend many years into the future. Such predictions are inherently uncertain. Each year, the Company re-evaluates its contingent consideration, and if material, makes adjustments to the recorded liability. Any adjustment to the contingent consideration liability is reflected in the Company's Statement of Operations. During fiscal 2013, the contingent consideration liability was increased by \$1.4 million, which is recorded as a part of other noncurrent liabilities on the Company's Consolidated Balance Sheet. For additional information related to our valuation of this obligation, see *Note 11, Fair Value Measurements*.

#### **NOTE 5. INTANGIBLE ASSETS**

Intangible assets consist of in-process research and development ("IPR&D") not subject to amortization, and other intangible assets subject to amortization, which were capitalized as a part of a business combination.

IPR&D represents projects that have not yet received regulatory approval and are required to be classified as indefinite assets until the successful completion or the abandonment of the associated R&D efforts. Accordingly, during the development period after the date of acquisition, these assets will not be amortized until approval is obtained in one or more jurisdictions which, individually or combined, are expected to generate a significant portion of the total revenue expected to be earned by an IPR&D project. At that time, we will determine the useful life of the asset, reclassify the asset out of IPR&D and begin amortization. If the associated R&D effort is abandoned the related IPR&D assets will likely be written off and we would record an impairment loss.

Intangible assets subject to amortization include patents capitalized as part of a business combination as well as license agreements capitalized as part of a business combination from the acquisition of Roche Madison. The license agreements are being amortized over the estimated life remaining at the time of acquisition which was 4 years. Patents are amortized over a period of three years to twenty years. The weighted average original amortization period is twelve years. Amortization of license agreements and patents is expected to be approximately \$55,000 for fiscal years 2014 and 2015, \$13,000 in 2016, and zero thereafter.

We review amounts capitalized as IPR&D for impairment at least annually in the fourth quarter, and whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. In the event the carrying value of the assets is not expected to be recovered, the assets are written down to their estimated fair values. We continue to test our indefinite-lived IPR&D assets for potential impairment until the projects are completed or abandoned.

The following table provides details on our intangible asset balances:

	Intangible assets not subject to amortization	Intangible assets subject to amortization	Total Intangible assets
Balance at September 30, 2011	\$ -	\$ 1,731,211	\$ 1,731,211
Additions—Madison acquisition	944,935	230,000	1,174,935
Additions—Alvos acquisition	2,172,387	-	2,172,387
Amortization	-	(293,964)	(293,964)
Balance at September 30, 2012	\$ 3,117,322	\$ 1,667,247	\$ 4,784,569
Impairment	-	(1,308,047)	(1,308,047)
Amortization	-	(236,009)	(236,009)
Balance at September 30, 2013	\$ 3,117,322	\$ 123,191	\$ 3,240,513
Amortization	-	(27,327)	(27,327)
Balance at March 31, 2014	<u>\$ 3,117,322</u>	<u>\$ 95,864</u>	<u>\$ 3,213,186</u>

#### NOTE 6. INVESTMENT IN SUBSIDIARIES

In addition to 100% ownership interest in Arrowhead Madison Inc., Arrowhead also maintains majority ownership in Calando Pharmaceuticals, Ablaris Therapeutics, Inc., and a minority investment in Leonardo Biosystems, Inc.

##### *Calando Pharmaceuticals, Inc.*

Calando is a developer of polymer delivery systems for siRNA and small molecule based therapeutics. Calando's current cash resources preclude additional development of its platform technology and therapeutic candidates. Arrowhead has determined that it will not provide substantial further investment to Calando based on Arrowhead evaluation of Calando's development and business prospects and Calando has been unsuccessful in its efforts to obtain capital from other sources. Calando has ceased operations and terminated its technology license with the California Institute of Technology on which its siRNA therapeutic development efforts were based. Further, pursuant to an involuntary petition by an unpaid Noteholder, Calando is undergoing Chapter 7 bankruptcy proceedings.

In 2009, Calando outlicensed its small molecule program to Cerulean Pharma, Inc., a Boston, MA-based biotech company which has continued the development of the program. Under the license, as the development program progresses, Calando could collect partnership, milestone and royalty programs from Cerulean.

Calando has an outstanding promissory note with a balance of principal and interest totaling \$1,210,000 as of March 31, 2014. The promissory note became due November 26, 2013; see Note 7 for further information.

As of March 31, 2014, Calando owed to Arrowhead \$4.6 million under a series of 8% simple interest notes and advances. It is unlikely these notes will be repaid in full. The balance of the notes and advances is eliminated in consolidation. In fiscal 2013, the Calando patent estate was returned to Caltech, and the Calando technology is not being pursued.

As of March 31, 2014, Arrowhead owned 79% of the outstanding shares of Calando and 76% on a fully diluted basis. As a result of the pending bankruptcy proceeding for Calando, we do not expect our equity ownership to result in any return of capital as part of the liquidation of Calando.

##### *Ablaris Therapeutics, Inc.*

Ablaris was formed and began operations in fiscal 2011, based on the license of certain anti-obesity technology developed at the MD Anderson Cancer Center at the University of Texas. During fiscal 2011, Ablaris raised \$2.9 million in cash, of which \$1.3 million was invested by Arrowhead and \$1.6 million was invested by outside investors, through the issuance of Ablaris Series A Preferred stock.

As of March 31, 2014, Arrowhead owned 64% of the outstanding shares of Ablaris and 64% on a fully diluted basis.

##### *Leonardo Biosystems, Inc.*

Leonardo, a privately-held drug-delivery company in which Arrowhead has a 3% ownership interest, ceased operations in December 2013. Arrowhead's investment in Leonardo and its receivable from Leonardo have been fully reserved.

## **NOTE 7. NOTES PAYABLE**

On November 26, 2008, Calando entered into Unsecured Convertible Promissory Note Agreements (“Notes”) for \$2.5 million with accredited investors and Arrowhead, which invested \$200,000 in the Notes offering. Arrowhead subsequently invested an additional \$600,000 in the same offering. Except for one Note in the principal amount of \$500,000, all Notes and accrued interest were converted into a total of 2,950 shares of Calando Series A Preferred Stock on June 23, 2009. The remaining Note had a 10% interest rate, matured on November 26, 2010, and was renegotiated and extended until November 26, 2013. The terms of the new note include a 10% interest rate and require two times principal payment at maturity. The interest rate while the Note is in default is 15%. The Note became due on November 26, 2013, but was not repaid due to lack of cash resources at Calando. At March 31, 2014, the Note is reflected on the balance sheet at the maturity amount of \$1.0 million. Accrued interest in the amount of \$210,000 is reflected as a part of accrued expenses on the Company’s Consolidated Balance Sheet. The holder of the Note initiated an involuntary petition of bankruptcy against Calando; Arrowhead did not object. A trustee has been appointed and a meeting of Calando creditors has occurred. It is expected that the trustee will dispose of Calando assets, primarily its license agreement with Cerulean. We cannot estimate the proceeds from the disposition of Calando’s assets, nor how it will be distributed amongst its various creditors, which includes Arrowhead and the holder of the Note.

## **NOTE 8. STOCKHOLDERS’ EQUITY**

At March 31, 2014, the Company had a total of 150,000,000 shares of capital stock authorized for issuance, consisting of 145,000,000 shares of Common Stock, par value \$0.001, and 5,000,000 shares of Preferred Stock, par value \$0.001.

At March 31, 2014, 51,867,071 shares of Common Stock were outstanding. Additionally, 21,291 shares of Preferred Stock were outstanding, including 5,291 shares of Series B Preferred Stock, convertible into 2,891,257 shares of Common Stock, and 16,000 shares of Series C Preferred Stock, convertible into 2,730,375 shares of Common Stock, (collectively, the “Outstanding Preferred Stock”). At March 31, 2014, 3,451,210 shares were reserved for issuance upon exercise of options granted under Arrowhead’s 2000 Stock Option Plan, 2004 Equity Incentive Plan, and 2013 Incentive Plan, as well as for inducement grants made to new employees.

The Outstanding Preferred Stock is convertible to Common Stock by each holder at its stated conversion price, subject to a 9.99% beneficial ownership limit for each holder. The holders of Outstanding Preferred Stock are eligible to vote with the Common Stock of the Company on an as-converted basis, but only to the extent they are eligible for conversion without exceeding the 9.99% ownership limitation. The Outstanding Preferred Stock does not carry a coupon, but is entitled to receive dividends on a pari passu basis with the Common Stock, when and if declared. In any liquidation or dissolution of the Company, the holders of Outstanding Preferred Stock are entitled to participate in the distribution of the assets, to the extent legally available for distribution, on a pari passu basis with the Common Stock.

On October 20, 2011, the Company and Lincoln Park Capital Fund, LLC, an Illinois limited liability company (“LPC”) entered into a \$15 million purchase agreement (the “Purchase Agreement”), whereby LPC agreed to purchase up to \$15 million of Common Stock, subject to certain limitations, from time to time during the three-year term of the Purchase Agreement. The Company has the right, in its sole discretion, over a 36-month period to sell up to \$15 million of Common Stock (subject to certain limitations) to LPC, depending on certain conditions as set forth in the Purchase Agreement. As of March 31, 2014, the Company had drawn \$1 million from the facility.

On October 21, 2011 and October 24, 2011, the Company entered into Subscription Agreements with certain accredited investors (the “Series A Purchasers”), pursuant to which the Company issued and sold an aggregate of 1,015 shares of Series A Preferred Convertible Stock, \$0.001 par value per share, at a purchase price of \$1,000 per share. The aggregate purchase price paid for the shares of Series A Preferred was \$1,015,000. On February 16, 2012, upon approval by the Company’s shareholders, 1,015 shares of Arrowhead Series A Preferred Convertible Stock, \$0.001 par value per share, were converted to 275,782 shares of Common Stock.

On October 21, 2011, the Company entered into a Subscription Agreement with an accredited investor, pursuant to which the Company issued and sold an aggregate of 675,000 shares of Common Stock, \$0.001 par value per share, at a purchase price of \$3.70 per share. The aggregate purchase price paid by the purchaser for the shares of Common Stock is \$2,497,500.

On August 10, 2012 the Company sold 2,260,869 units at a price of \$2.76 per unit. Each unit consisted of one share of common stock and a warrant to purchase 0.75 shares of common stock at an exercise price of \$3.25. Gross proceeds from the offering were \$6.2 million excluding offering fees and expenses.

In December 2012, the Company sold 1,825,079 units at a price of \$2.26 per unit. Each unit consisted of one share of common stock and a warrant to purchase 0.5 shares of common stock. Gross proceeds from the offering were \$4.1 million excluding offering fees and expenses. The exercise price of these warrants was \$1.83 as of September 30, 2013, and may decrease based on certain specified events. As a result, the Company determined these warrants were ineligible for equity classification. Refer to Note 11 for further discussion regarding these warrants.

In January 2013, the Company sold 1,667,051 units at a price of \$2.12 per unit. Each unit consisted of one share of common stock and a warrant to purchase 0.5 shares of common stock. Gross proceeds from the offering were \$3.5 million excluding offering fees and expenses. The exercise price of these warrants was \$1.83 as of September 30, 2013, and may decrease based on certain specified events. As a result, the Company determined these warrants were ineligible for equity classification. Refer to Note 11 for further discussion regarding these warrants.

In May 2013, the Company sold 14.3 million shares of Arrowhead common stock at a price of \$1.83 per share and 9,900 shares of Arrowhead series B convertible preferred stock at a price of \$1,000 per share. The series B preferred stock is convertible into common stock at a conversion price of \$1.83. Gross proceeds were \$36 million. No warrants were issued in the May 2013 financing.

On October 11, 2013, the Company sold 3,071,672 shares of common stock, at a price of \$5.86 per share, and 46,000 shares of Series C Convertible Preferred Stock (the "Preferred Shares"), at a price of \$1,000 per share. The Preferred Shares are convertible into shares of common stock at a conversion price of \$5.86. The aggregate purchase price paid by the Purchasers for the Shares and Preferred Shares was \$64,000,000 and the Company received net proceeds of approximately \$60,000,000, after advisory fees and offering expenses.

On February 24, 2014, the Company sold 6,325,000 shares of common stock, at a public offering price of \$18.95 per share. Net proceeds were approximately \$112.6 million after underwriting commissions and discounts and other offering expense.

The following table summarizes information about warrants outstanding at March 31, 2014:

Exercise prices	Number of Warrants	Remaining Life in Years
\$ 70.60	94,897	3.1
\$ 5.00	995,692	0.7
\$ 5.09	291,204	0.7
\$ 1.38	24,324	1.7
\$ 4.16	1,000	2.7
\$ 3.25	746,306	2.4
\$ 2.12	75,000	3.7
\$ 1.83	305,084	3.7
Total warrants outstanding	2,533,507	

#### **NOTE 9. LEASES**

The Company leases office space for its corporate headquarters in Pasadena, California. In March 2014, the Company signed a lease addendum to expand its corporate headquarters. It is expected the new space will be available in August 2014. The leases for the expansion space and the current space will expire in July 2018. Rental costs, including the expansion space are approximately \$22,000 per month, increasing 3% annually.

The Company's research facility in Madison, Wisconsin is leased through February 28, 2019. Monthly rental expense is approximately \$23,000. Other monthly rental expenses include common area maintenance and real estate taxes totaling approximately \$15,000 per month. Utilities costs are approximately \$14,000 per month. Including monthly payments recorded under a capital lease of approximately \$19,000, total monthly costs are approximately \$71,000 per month.

Facility and equipment rent expense, related to continuing operations, for six months ended March 31, 2014 and 2013 was \$264,000 and \$281,000, respectively. From inception to date, rent expense was \$4,924,000.

As of March 31, 2014, future minimum lease payments due in fiscal years under capitalized leases are as follows:

2014 (remainder of)	\$ 114,211
2015	228,420
2016	228,420
2017	228,420
2018	228,420
2019 and thereafter	95,175
Less interest	<u>(45,055)</u>
Principal	1,078,011
Less current portion	<u>(212,234)</u>
Noncurrent portion	<u>\$ 865,777</u>

As of March 31, 2014, future minimum lease payments due in fiscal years under operating leases are as follows:

2014 (remainder of)	\$ 234,692
2015	552,028
2016	567,904
2017	583,932
2018	607,437
2019 and thereafter	<u>393,133</u>
Total	<u>\$ 2,939,126</u>

**NOTE 10. STOCK-BASED COMPENSATION**

Arrowhead has three plans that provide for equity-based compensation. Under the 2000 Stock Option Plan, 50,750 shares of Arrowhead's Common Stock are reserved for issuance upon exercise of non-qualified stock options. No further grants can be made under the 2000 Stock Option Plan. The 2004 Equity Incentive Plan reserves 2,735,597 shares for the grant of stock options, stock appreciation rights, restricted stock awards and performance unit/share awards to employees, consultants and others. The 2013 Incentive Plan reserves 4,000,000 shares for the grant of stock options, stock appreciation rights, restricted stock awards and performance awards to employees, consultant and others. As of March 31, 2014, there were options granted and outstanding to purchase 50,750, 2,733,595 and 615,000 shares of Common Stock under the 2000 Stock Option Plan, the 2004 Equity Incentive Plan and the 2013 Incentive Plan, respectively. Also, as of March 31, 2014, there were 417,406 shares reserved for options issued outside of equity compensation plans as inducement grants to new employees. During the six months ended March 31, 2014, no options were granted under the 2004 Equity Incentive Plan, 615,000 were issued under the 2013 Incentive Plan and 165,000 options were granted outside of equity incentive plans as inducement stock options to new employees.

The following tables summarize information about stock options:

	Unit/Share Number of Options Outstanding	Weighted- Average Exercise Price Per Share	Weighted- Average Remaining Contractual Term	Aggregate Intrinsic Value
Balance At September 30, 2011	729,096	\$ 9.03		
Granted	1,229,500	4.40		
Cancelled	(42,919)	11.77		
Exercised	(4,883)	5.20		
Balance At September 30, 2012	1,910,794	6.10		
Granted	1,509,166	2.03		
Cancelled	—	—		
Exercised	(675)	3.93		
Balance At September 30, 2013	3,419,285	\$ 4.68		
Granted	780,000	13.51		
Cancelled	(40,196)	4.68		
Exercised	(342,338)	6.54		
Balance At March 31, 2014	3,816,751	\$ 5.81	7.5 years	\$ 38,622,771
Exercisable At March 31, 2014	1,351,974	\$ 5.91	7.2 years	\$ 14,710,062

Stock-based compensation expense for the six months ended March 31, 2014 and 2013 was \$1,719,582 and \$750,782, respectively. There is no income tax benefit as the Company is currently operating at a loss and an actual income tax benefit may not be realized. The loss creates a timing difference, resulting in a deferred tax asset, which is fully reserved by a valuation allowance.

The fair value of the options granted by the Company during the three months ended March 31, 2014 and 2013 is estimated at \$7,085,656 and \$103,293, respectively.

The intrinsic value of the options exercised during the six months ended March 31, 2014 and 2013 was \$3,115,175 and \$0, respectively; no options were exercised during the six months ended March 31, 2013.

As of March 31, 2014, the pre-tax compensation expense for all unvested stock options in the amount of approximately \$17,294,117 will be recognized in our results of operations over a weighted average period of 3.5 years.

The fair value of each stock option award is estimated on the date of grant using the Black-Scholes option pricing model. The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options, which do not have vesting restrictions and are fully transferable. The determination of the fair value of each stock option is affected by our stock price on the date of grant, as well as assumptions regarding a number of highly complex and subjective variables. Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its employee stock options.

The assumptions used to value stock options are as follows:

	Six months ended March 31,	
	2014	2013
Dividend yield	—	—
Risk-free interest rate	1.9% to 2.26%	0.7% to 1.0%
Volatility	69%	69%
Expected life (in years)	5.5 to 6.25	5.5 to 6.25
Weighted average grant date fair value per share of options granted	\$9.08	\$1.31

The dividend yield is zero as the Company currently does not pay a dividend.

The risk-free interest rate is based on the U.S. Treasury bond.



Volatility is estimated based on volatility average of the Company's Common Stock price.

#### Restricted Stock Units

Restricted Stock Units (RSUs) are granted under our 2013 Incentive Plan. During the quarter ended March 31, 2014, the Company issued 470,000 restricted stock units to certain members of management and certain members of its Board of Directors. At vesting each RSU will be exchanged for one share of the Company's Common Stock. The RSUs issued to management vest in equal installments on the one and two year anniversary of the date of grant. The RSUs issued to the members of the Board of Directors vest upon the one year anniversary of the date of grant.

The following table summarizes the activity of the Company's Restricted Stock Units:

	Number of RSUs	Weighted- Average Grant Date Fair Value
Unvested at September 30, 2013	-	\$ -
Granted	470,000	14.54
Vested	-	-
Forfeited	-	-
Unvested at March 31, 2014	<u>470,000</u>	<u>\$ 14.54</u>

The Company recorded \$570,707 and \$0 of expense relating to restricted stock units during the six months ended March 31, 2014 and 2013 respectively, and such expense is included in stock-based compensation expense.

#### NOTE 11. FAIR VALUE MEASUREMENTS

The Company measures its financial assets and liabilities at fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (i.e., exit price) in an orderly transaction between market participants at the measurement date. Additionally, the Company is required to provide disclosure and categorize assets and liabilities measured at fair value into one of three different levels depending on the assumptions (i.e., inputs) used in the valuation. Level 1 provides the most reliable measure of fair value while Level 3 generally requires significant management judgment. Financial assets and liabilities are classified in their entirety based on the lowest level of input significant to the fair value measurement. The fair value hierarchy is defined as follows:

Level 1—Valuations are based on unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2—Valuations are based on quoted prices for similar assets or liabilities in active markets, or quoted prices in markets that are not active for which significant inputs are observable, either directly or indirectly.

Level 3—Valuations are based on prices or valuation techniques that require inputs that are both unobservable and significant to the overall fair value measurement. Inputs reflect management's best estimate of what market participants would use in valuing the asset or liability at the measurement date.

The following table summarizes fair value measurements at March 31, 2014 and September 30, 2013 for assets and liabilities measured at fair value on a recurring basis:

March 31, 2014:

	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	\$ 142,847,860	\$ —	\$ —	\$ 142,847,860
Derivative assets	\$ —	\$ —	\$ —	\$ —
Derivative liabilities	\$ —	\$ —	\$ 4,936,530	\$ 4,936,530
Acquisition related contingent consideration obligations	\$ —	\$ —	\$ 1,595,273	\$ 1,595,273

September 30, 2013:

	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	\$ 19,114,444	\$ —	\$ —	\$ 19,114,444
Derivative assets	\$ —	\$ —	\$ —	\$ —
Derivative liabilities	\$ —	\$ —	\$ 4,096,363	\$ 4,096,363
Acquisition related contingent consideration obligations	\$ —	\$ —	\$ 1,595,273	\$ 1,595,273

The Company invests its excess cash balances in short and long-term corporate bonds, generally with remaining maturities of less than two years. At March 31, 2014, the Company had short-term investments of \$17,798,475, and long-term investments of \$34,048,359, for a total of \$51,846,834. The fair value of its investment at March 31, 2014 was \$51,563,458. The Company expects to hold such investments until maturity, and thus unrealized gains and losses from the fluctuations in the fair value of the securities are not likely to be realized.

As part of the proceeds from the sale of Unidym in January 2011, Arrowhead received a bond from Wisepower in the face amount of \$2.5 million. The bond is convertible to Wisepower common stock at a price of \$2.00 per share. The conversion feature is subject to derivative accounting as prescribed under ASC 815. Accordingly, the fair value of the conversion feature on the date of issuance was estimated using an option pricing model and recorded on the Company's consolidated balance sheet as a derivative asset. The fair value of the conversion feature is estimated at the end of each reporting period and the change in the fair value of the conversion feature is recorded as a nonoperating gain/loss as change in value of derivatives in Company's Consolidated Statement of Operations. During the quarter ended March 31, 2013, the trading of Wisepower stock was halted. Trading resumed in July 2013, but the trading price is significantly below the conversion price. During fiscal 2013, the Company determined that the probability of realizing value from the conversion feature was remote, and the derivative asset value was reduced to zero.

During the six months ended March 31, 2014, there was no change in the fair value of the derivative asset.

The assumptions used in valuing the derivative asset were not applicable as the value has been determined to be zero at March 31, 2014 and September 30, 2013.

	March 31, 2014	September 30, 2013
Risk free interest rate	—	—
Expected life	—	—
Dividend yield	—	—
Volatility	—	—

The following is a reconciliation of the derivative asset:

Value at September 30, 2012	\$ 250,250
Receipt of instruments	—
Decrease in value	(250,250)
Net settlements	—
Value at September 30, 2013	\$ —
Receipt of instruments	—
Decrease in value	—
Net settlements	—
Value at March 31, 2014	\$ —

As part of an equity financing in June 2010, Arrowhead issued warrants to acquire up to 329,649 shares of Common Stock (the “2010 Warrants”), of which 24,324 warrants were outstanding at March 31, 2014, which contain a mechanism to adjust the strike price upon the issuance of certain dilutive equity securities. If during the term of the 2010 Warrants, the Company issues Common Stock at a price lower than the exercise price of the 2010 Warrants, the exercise price of the 2010 Warrants would be reduced to the amount equal to the issuance price of the Common Stock. Similarly, as part of a financing in December 2012, Arrowhead issued warrants to acquire up to 912,543 shares of Common Stock (the “2012 Warrants”) of which 265,461 warrants were outstanding at March 31, 2014, which contain a mechanism to adjust the strike price upon the issuance of certain dilutive equity securities. If during the term of the 2012 Warrants, the Company issues Common Stock at a price lower than the exercise price of the 2012 Warrants, the exercise price of the 2012 Warrants would be reduced to the amount equal to the issuance price of the Common Stock. Further, as part of a financing in January 2013, Arrowhead issued warrants to acquire up to 833,530 shares of Common Stock (the “2013 Warrants”) of which 39,623 warrants were outstanding at March 31, 2014 which contain a mechanism to adjust the strike price upon the issuance of certain dilutive equity securities. If during the term of the 2013 Warrants, the Company issues Common Stock at a price lower than the exercise price of the 2013 Warrants, the exercise price of the 2013 Warrants would be reduced to the amount equal to the issuance price of the Common Stock. As a result of these features, the 2010 Warrants, the 2012 Warrants, and the 2013 Warrants are subject to derivative accounting as prescribed under ASC 815. Accordingly, the fair value of the Warrants on the date of issuance was estimated using an option pricing model and recorded on the Company’s consolidated balance sheet as a derivative liability. The fair value of the Warrants is estimated at the end of each reporting period and the change in the fair value of the Warrants is recorded as a nonoperating gain or loss in the Company’s consolidated statement of operations. During the six months ended March 31, 2014, the Company recorded a non-cash loss from the change in fair value of the derivative liability of \$9,234,419.

The assumptions used in valuing the derivative liability were as follows:

<b>2010 Warrants</b>	<u>March 31, 2014</u>	<u>September 30, 2013</u>
Risk free interest rate	0.44%	0.33%
Expected life	2.0 Years	2.2 Years
Dividend yield	None	None
Volatility	69%	69%
<b>2012 Warrants</b>	<u>March 31, 2014</u>	<u>September 30, 2013</u>
Risk free interest rate	1.31%	1.39%
Expected life	3.7 Years	4.2 Years
Dividend yield	None	None
Volatility	69%	69%
<b>2013 Warrants</b>	<u>March 31, 2014</u>	<u>September 30, 2013</u>
Risk free interest rate	1.31%	1.39%
Expected life	3.8 Years	4.3 Years
Dividend yield	None	None
Volatility	69%	69%

The following is a reconciliation of the derivative liability related to these warrants:

Value at September 30, 2012	\$ 626,195
Issuance of instruments	2,153,819
Change in value	5,066,591
Net settlements	(3,754,808)
Value at September 30, 2013	\$ 4,091,797
Issuance of instruments	—
Change in value	9,234,419
Net settlements	(8,447,443)
Value at March 31, 2014	\$ 4,878,773

In conjunction with the financing of Ablaris in fiscal 2011, Arrowhead sold exchange rights to certain investors whereby the investors have the right to exchange their shares of Ablaris for a prescribed number of Arrowhead shares based upon a predefined ratio. The exchange rights have a seven-year term. During the first year, the exchange right allows the holder to exchange one Ablaris share for 0.06 Arrowhead shares (as adjusted for a subsequent reverse stock split). This ratio declines to 0.04 in the second year, 0.03 in the third year and 0.02 in the fourth year. In the fifth year and beyond the exchange ratio is 0.01. Exchange rights for 675,000 Ablaris shares were sold in fiscal 2011, and remain outstanding at March 31, 2014. The exchange rights are subject to derivative accounting as prescribed under ASC 815. Accordingly, the fair value of the exchange rights on the date of issuance was estimated using an option pricing model and recorded on the Company's consolidated balance sheet as a derivative liability. The fair value of the exchange rights is estimated at the end of each reporting period and the change in the fair value of the exchange rights is recorded as a nonoperating gain or loss in the Company's Consolidated Statement of Operations. During the six months ended March 31, 2014, the Company recorded a non-cash loss from the change in fair value of the derivative liability of \$53,190.

	December 31, 2013	September 30, 2013
Risk free interest rate	1.31%	1.39%
Expected life	3.8 Years	4.3 Years
Dividend yield	None	None
Volatility	69%	69%

The following is a reconciliation of the derivative liability related to these exchange rights:

Value at September 30, 2012	\$	10,375
Issuance of instruments		—
Change in value		(5,806)
Net settlements		—
Value at September 30, 2013	\$	4,569
Issuance of instruments		—
Change in value		53,190
Net settlements		—
Value at March 31, 2014	\$	<u>57,759</u>

The derivative assets/liabilities are estimated using option pricing models that are based on the individual characteristics of the warrants or instruments on the valuation date, as well as assumptions for expected volatility, expected life and risk-free interest rate. Changes in the assumptions used could have a material impact on the resulting fair value. The primary input affecting the value of our derivatives liabilities is the Company's stock price. Other inputs have a comparatively insignificant effect.

During fiscal 2012, contingent consideration was recorded upon the acquisitions of Roche Madison Inc. and Alvos Therapeutics, Inc., totaling \$173,621. The fair value measurement of the contingent consideration obligations is determined using Level 3 inputs. The fair value of contingent consideration obligations is based on a discounted cash flow model using a probability-weighted income approach. The measurement is based upon unobservable inputs supported by little or no market activity based on our own assumptions and experience. Estimating timing to complete the development, and obtain approval of products is difficult, and there are inherent uncertainties in developing a product candidate, such as obtaining U.S. Food and Drug Administration (FDA) and other regulatory approvals. In determining the probability of regulatory approval and commercial success, we utilize data regarding similar milestone events from several sources, including industry studies and our own experience. These fair value measurements represent Level 3 measurements as they are based on significant inputs not observable in the market. Significant judgment is employed in determining the appropriateness of these assumptions as of the acquisition date and for each subsequent period. Accordingly, changes in assumptions could have a material impact on the amount of contingent consideration expense we record in any given period. Changes in the fair value of the contingent consideration obligations are recorded in our consolidated statement of operations.

The following is a reconciliation of contingent consideration fair value.

Value at September 30, 2012	\$	173,621
Purchase price contingent consideration		—
Contingent consideration payments		—
Change in fair value of contingent consideration		1,421,652
Value at September 30, 2013	\$	1,595,273
Purchase price contingent consideration		—
Contingent consideration payments		—
Change in fair value of contingent consideration		—
Value at March 31, 2014	\$	<u>1,595,273</u>

The fair value of contingent consideration obligations is estimated through valuation models designed to estimate the probability of such contingent payments based on various assumptions and incorporating estimated success rates. Estimated payments are discounted using present value techniques to arrive at estimated fair value at the balance sheet date. Changes in the fair value of the contingent consideration obligations can result from changes to one or multiple inputs, including adjustments to the discount rates, changes in the amount or timing of expected expenditures associated with product development, changes in the amount or timing of cash flows from products upon commercialization, changes in the assumed achievement or timing of any development milestones, changes in the probability of certain clinical events and changes in the assumed probability associated with regulatory approval. Each of these assumptions can have a significant impact on the calculation of contingent consideration.

The carrying amounts of the Company's other financial instruments, which include accounts receivable, accounts payable, and accrued expenses approximate their respective fair values due to the relatively short-term nature of these instruments. The carrying value of the Company's debt obligations approximates fair value based on market interest rates.

## ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

*This Quarterly Report on Form 10-Q contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, and we intend that such forward-looking statements be subject to the safe harbors created thereby. For this purpose, any statements contained in this Quarterly Report on Form 10-Q except for historical information may be deemed to be forward-looking statements. Without limiting the generality of the foregoing, words such as "may," "will," "expect," "believe," "anticipate," "intend," "could," "estimate," or "continue" or the negative or other variations thereof or comparable terminology are intended to identify forward-looking statements. In addition, any statements that refer to projections of our future financial performance, trends in our businesses, or other characterizations of future events or circumstances are forward-looking statements.*

*The forward-looking statements included herein are based on current expectations of our management based on available information and involve a number of risks and uncertainties, all of which are difficult or impossible to predict accurately and many of which are beyond our control. As such, our actual results may differ significantly from those expressed in any forward-looking statements. Readers should carefully review the factors identified in this report under the caption "Risk Factors" as well as the additional risks described in other documents we file from time to time with the Securities and Exchange Commission ("SEC"), including our most recent Annual Report on Form 10-K. In light of the significant risks and uncertainties inherent in the forward-looking information included herein, the inclusion of such information should not be regarded as a representation by us or any other person that such results will be achieved, and readers are cautioned not to place undue reliance on such forward-looking information. Except as may be required by law, we disclaim any intent to revise the forward-looking statements contained herein to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.*

### **Overview**

Arrowhead Research Corporation is a biopharmaceutical company developing targeted RNAi therapeutics. The Company is leveraging its proprietary drug delivery technologies to develop drugs based on the RNA interference mechanism that efficiently silences disease-causing genes. These platforms have yielded several drug candidates under internal and partnered development. Arrowhead technologies also enable partners to create peptide-drug conjugates that specifically home to cell types of interest while sparing off-target tissues. Arrowhead's pipeline includes clinical programs in chronic hepatitis B virus and partner-based programs in obesity and oncology.

Arrowhead is leveraging its in-house R&D expertise and capabilities, as well as a broad intellectual property portfolio for RNAi therapeutics, and RNAi and peptide delivery vehicles and targeting methods to seek development partnerships with other pharmaceutical and biotech companies committed to bringing RNAi therapeutics to market, as well as continuing the preclinical and clinical development of its own clinical candidates.

Arrowhead operates a lab facility in Madison, Wisconsin, where the Company's research and development activities, including the development of RNAi therapeutics, are based. The Company's principal executive offices are located at 225 South Lake Avenue, Suite 1050, Pasadena, California 91101, and its telephone number is (626) 304-3400.

### **Liquidity and Capital Resources**

Arrowhead has historically financed its operations primarily through the sale of Arrowhead securities. Research and development activities have required significant capital investment and are expected to continue to require significant cash investment for the foreseeable future.

At March 31, 2014, the Company had \$194.7 million in cash and liquid investments to fund operations. During the six months ended March 31, 2014, the Company's cash position increased significantly primarily due proceeds from the sale of equity securities.

During the six months ended March 31, 2014, cash used in operating activities was \$14.7 million, which represents the on-going expenses for research and development activities, business development, and general and administrative expenses.

Cash used in investing activities during the six months ended March 31, 2014 was \$42.0 million, of which \$41.4 million related to net investments in marketable fixed income securities. Capital expenditures were \$0.6 million.

Cash provided by financing activities in the six months ended March 31, 2014 was \$180.4 million. The Company completed equity financings in October 2013 and in February 2014 with net proceeds of \$172.6 million. Additionally, financing activities included cash inflow from the exercise of warrants and options of \$8.0 million. Principal payments on capital leases were \$0.2 million.

### *Recent Financing Activity / Sources of Capital:*

On February 24, 2014, the Company sold 6,325,000 shares of common stock, at a public offering price of \$18.95 per share. Net proceeds were approximately \$112.6 million after underwriting commissions and discounts and other offering expenses.

On October 11, 2013, the Company sold 3,071,672 shares of Common Stock, at a price of \$5.86 per share, and 46,000 shares of Series C Convertible Preferred Stock (the "Preferred Shares"), at a price of \$1,000 per share. The Preferred Shares are convertible into shares of Common Stock at a conversion price of \$5.86 per share. The aggregate purchase price paid by the Purchasers for the Common Stock and Preferred Shares was \$64,000,000 and the Company received net proceeds of approximately \$60,000,000, after advisory fees and offering expenses.

In May 2013, the Company sold 14.3 million shares of Arrowhead common stock at a price of \$1.83 per share, and 9,900 shares of Arrowhead Series B Convertible Preferred Stock at a price of \$1,000 per share. The Series B Preferred Stock is convertible into Common Stock at a conversion price of \$1.83. Gross proceeds were \$36 million.

On January 25, 2013, the Company sold 1.7 million units at a price of \$2.12 per unit in a public offering. Each unit consisted of one share of Common Stock and a warrant to purchase 0.5 share of Common Stock. The exercise price of these warrants was \$2.14 as of June 30, 2013. Gross proceeds from the offering were \$3.5 million; net proceeds were \$3.3 million after deducting commissions and other offering expenses.

On December 6, 2012, the Company sold 1.8 million units at a price of \$2.26 per unit in a public offering. Each unit consisted of one share of Common Stock and a warrant to purchase 0.5 share of Common Stock. The exercise price of these warrants was \$2.12 as of June 30, 2013. Gross proceeds from the offering were \$4.1 million; net proceeds were \$3.8 million after deducting commissions and other offering expenses.

Based upon the Company's current cash resources and operating plan, the Company expects to have sufficient liquidity to fund operations for the next twelve months, and beyond.

### ***Critical Accounting Policies and Estimates***

Management makes certain judgments and uses certain estimates and assumptions when applying accounting principles generally accepted in the United States in the preparation of our Consolidated Financial Statements. We evaluate our estimates and judgments on an ongoing basis and base our estimates on historical experience and on assumptions that we believe to be reasonable under the circumstances. Our experience and assumptions form the basis for our judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may vary from what we anticipate and different assumptions or estimates about the future could change our reported results. We believe the following accounting policies are the most critical to us, in that they are important to the portrayal of our consolidated financial statements and require our most difficult, subjective or complex judgments in the preparation of our consolidated financial statements. For further information, see *Note 1, Organization and Significant Accounting Policies*, to our Consolidated Financial Statements which outlines our application of significant accounting policies and new accounting standards.

#### *Revenue Recognition*

Revenue from product sales are recorded when persuasive evidence of an arrangement exists, title has passed and delivery has occurred, a price is fixed and determinable, and collection is reasonably assured.

We may generate revenue from technology licenses, collaborative research and development arrangements, research grants and product sales. Revenue under technology licenses and collaborative agreements typically consists of nonrefundable and/or guaranteed technology license fees, collaborative research funding, and various milestone and future product royalty or profit-sharing payments.

Revenue associated with payments under collaborative agreements for research and development is recognized ratably over the relevant periods specified in the agreement, generally the period during which research and development is conducted. Revenue from up-front license fees, milestones and product royalties are recognized as earned based on the completion of the milestones and product sales, as defined in the respective agreements. Payments received in advance of recognition as revenue are recorded as deferred revenue.

### *Business Combinations*

In October 2011, we acquired all of the outstanding common stock of Roche Madison, Inc. and certain related intellectual property assets for a \$50,000 promissory note and 1,288,158 shares of Arrowhead Common Stock, an estimated consideration value of \$5.1 million on the date of the acquisition. We assigned the value of the consideration to the tangible assets and identifiable intangible assets and the liabilities assumed on the basis of their fair values on the date of acquisition. The excess of net assets over the consideration was recorded as a nonoperating gain.

In April 2012, we acquired all of the outstanding common stock of Alvos Therapeutics, Inc. in exchange for the issuance of 315,457 shares of Arrowhead Common Stock, valued at \$2.0 million at the time of acquisition. The consideration was assigned to its tangible and intangible assets, and liabilities based on estimated fair values at the time of acquisition.

The allocation of value to certain items, including property and equipment, intangible assets and certain liabilities require management judgment, and is based upon the information available at the time of acquisition.

### *Impairment of Long-lived Assets*

We review long-lived assets for impairment whenever events or changes in business circumstances indicate that the carrying amount of assets may not be fully recoverable or that our assumptions about the useful lives of these assets are no longer appropriate. If impairment is indicated, recoverability is measured by a comparison of the carrying amount of an asset to estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future cash flows, an impairment charge is recognized in the amount by which the carrying amount of the asset exceeds the fair value of the asset.

### *Impairment of Intangible assets*

Intangible assets consist of in-process research and development, patents and license agreements acquired in conjunction with a business acquisition. Intangible assets are monitored for potential impairment whenever events or circumstances indicate that the carrying amount may not be recoverable, and are also reviewed annually to determine whether any impairment is necessary. Based on ASC 350, the annual review of intangible assets is performed via a two-step process. First, a qualitative assessment is performed to determine if it is more likely than not that the intangible asset is impaired. If required, a quantitative assessment is performed and, if necessary, impairment is recorded.

### *Stock-Based Compensation*

We recognize stock-based compensation expense based on the grant date fair value using the Black-Scholes options pricing model, which requires us to make assumptions regarding certain variables including the risk-free interest rate, expected stock price volatility, and the expected life of the award. The assumptions used in calculating stock-based compensation expense represent management's best estimates, but these estimates involve inherent uncertainties, and if factors change or the Company used different assumptions, its stock-based compensation expense could be materially different in the future.

### *Derivative Assets and Liabilities*

We account for warrants and other derivative financial instruments as either equity or assets/liabilities based upon the characteristics and provisions of each instrument. Warrants classified as equity are recorded as additional paid-in capital on our consolidated balance sheet and no further adjustments to their valuation are made. Some of our warrants were determined to be ineligible for equity classification because of provisions that may result in an adjustment to their exercise price. Warrants classified as derivative liabilities and other derivative financial instruments that require separate accounting as assets or liabilities are recorded on our consolidated balance sheet at their fair value on the date of issuance and are revalued on each subsequent balance sheet date until such instruments are exercised or expire, with any changes in the fair value between reporting periods recorded as other income or expense. We estimate the fair value of these assets/liabilities using option pricing models that are based on the individual characteristics of the warrants or instruments on the valuation date, as well as assumptions for expected volatility, expected life and risk-free interest rate. Changes in the assumptions used could have a material impact on the resulting fair value. The primary input affecting the value of our derivatives liabilities is the Company's stock price.



## Overview of recent research and development activity

In July 2013, the Company began a Phase 1 clinical trial in Australia in healthy volunteers to characterize the safety profile of ARC-520, its candidate for the treatment of hepatitis B (HBV). This trial completed anticipated enrollment in October 2013. The Company began a Phase 2a pilot efficacy study in Hong Kong for chronically infected HBV patients in March 2014. The Company continues to develop other clinical candidates for future clinical trials, focusing on intravenously-administered therapeutics targeting gene knockdown in the liver, as well as formulations for administering siRNA-based therapeutics by subcutaneous administration.

## Results of Operations

The Company had a consolidated loss attributable to Arrowhead of \$24,570,831 for the six months ended March 31, 2014, compared to a consolidated loss attributable to Arrowhead of \$11,372,095 for the six months ended March 31, 2013. Details of the results of operations are presented below.

## Revenue

The Company recorded revenue of \$87,500 during the six months ended March 31, 2014, compared to \$202,766 during the six months ended March 31, 2013. The revenue in fiscal 2014 was related to three license agreements for a research method acquired through the acquisition of Roche Madison, Inc. The revenue in fiscal 2013 also included \$115,266 in non-recurring services revenue.

## Operating Expenses

The analysis below details the operating expenses and discusses the expenditures of the Company within the major expense categories. The following tables provide details of operating expenses for the three and six months ended March 31, 2014 and 2013.

### Salaries – Three and six months ended March 31, 2014 compared to the three and six months ended March 31, 2013

The Company employs management, administrative, and scientific and technical staff at its corporate offices and its research facility. Salaries expense consists of salary and related benefits. Salary and benefits include two major categories: general and administrative compensation expense, and research and development compensation expense, depending on the primary activities of each employee. The following table provides detail of salary and wage expenses for the three and six months ended March 31, 2014 as compared to the three and six months ended March 31, 2013.

(in thousands, except percentages)

	Three months	% of	Three months	% of	Increase (Decrease)	
	Ended	Expense	Ended	Expense	\$	%
	March 31, 2014	Category	March 31, 2014	Category		
G&A - compensation-related	\$ 1,623	52%	\$ 654	38%	\$ 969	148%
R&D - compensation-related	1,475	48%	1,071	62%	404	38%
<b>Total</b>	<b>\$ 3,098</b>	<b>100%</b>	<b>\$ 1,725</b>	<b>100%</b>	<b>\$ 1,373</b>	<b>80%</b>

	Six months	% of	Six months	% of	Increase (Decrease)	
	Ended	Expense	Ended	Expense	\$	%
	March 31, 2014	Category	March 31, 2014	Category		
G&A - compensation-related	\$ 2,375	46%	\$ 1,238	37%	\$ 1,137	92%
R&D - compensation-related	2,805	54%	2,117	63%	688	32%
<b>Total</b>	<b>\$ 5,180</b>	<b>100%</b>	<b>\$ 3,355</b>	<b>100%</b>	<b>\$ 1,825</b>	<b>54%</b>

G&A compensation expense was \$1,623,000 during the three months ended March 31, 2014, compared to \$654,000 in the comparable prior period. The expense was higher by approximately \$969,000 during the quarter as compared to the comparable prior period. The majority of this change was due to annual performance bonuses paid during the quarter, none were paid in the previous period. Additionally, a portion of the increase is due to salary increases.

G&A compensation expense was \$2,375,000 during the six months ended March 31, 2014, compared to \$1,238,000 in the comparable prior period. The expense was higher by approximately \$1,137,000 during the period as compared to the comparable prior period. The majority of this change was also due to annual performance bonuses paid during the period, none were paid in the previous period. Additionally, a portion of the increase is due to salary increases. G&A headcount remained fairly consistent during the past twelve months.

R&D compensation expense was \$1,475,000 during the three months ended March 31, 2014, compared to \$1,071,000 in the comparable prior period. The expense was higher by approximately \$404,000 during the quarter as compared to the comparable prior period. R&D headcount, higher by eleven people at March 31, 2014 versus March 31, 2013, and salary increases accounted for the change in salary expense. Additionally, annual performance bonuses were paid to certain employees during the quarter totaling \$167,000 in expense; none were paid in the prior period.

R&D compensation expense was \$2,805,000 during the six months ended March 31, 2014, compared to \$2,117,000 in the comparable prior period. The expense was higher by approximately \$688,000 during the period as compared to the comparable prior period. Increased headcount, salary increases accounted for the change in salary expense. Annual performance bonuses were paid to certain employees during the six months ended March 31, 2014 totaling \$292,000 in expense; none were paid in the prior period.

**General & Administrative Expenses – Three and six months ended March 31, 2014 compared to the three and six months ended March 31, 2013**

The following table provides detail of G&A expenses for the three and six months ended March 31, 2014 as compared to the three and six months ended March 31, 2013.

(in thousands, except percentages)

	Three months Ended		% of Expense Category	Three months Ended		Increase (Decrease)	
	March 31, 2014			March 31, 2013		\$	%
Professional/outside services	\$ 590	44%	\$ 302	39%	\$ 288	95%	
Patent expense	269	20%	200	26%	69	35%	
Facilities and related	48	4%	44	6%	4	9%	
Travel	139	10%	93	12%	46	49%	
Business insurance	57	4%	50	6%	7	14%	
Communication and Technology	106	8%	51	7%	55	108%	
Office expenses	96	5%	19	2%	42	221%	
Other	42	6%	21	3%	56	267%	
<b>Total</b>	<b>\$ 1,347</b>	<b>100%</b>	<b>\$ 780</b>	<b>100%</b>	<b>\$ 567</b>	<b>73%</b>	

	Six months Ended		% of Expense Category	Six months Ended		Increase (Decrease)	
	March 31, 2014			March 31, 2013		\$	%
Professional/outside services	\$ 997	44%	\$ 669	39%	\$ 328	49%	
Patent expense	401	18%	450	27%	(49)	-11%	
Facilities and related	94	4%	86	5%	8	9%	
Travel	239	11%	191	11%	48	25%	
Business insurance	112	5%	99	6%	13	13%	
Communication and Technology	164	7%	87	5%	77	89%	
Office expenses	153	5%	60	4%	58	97%	
Other	101	6%	56	3%	80	143%	
<b>Total</b>	<b>\$ 2,261</b>	<b>100%</b>	<b>\$ 1,698</b>	<b>100%</b>	<b>\$ 563</b>	<b>33%</b>	

Professional/outside services include legal, accounting, consulting and other outside services retained by the Company. All periods include normally recurring legal and audit expenses related to SEC compliance and other corporate matters. Professional/outside services expense was \$590,000 during the three months ended March 31, 2014, compared to \$302,000 in the comparable prior period. The increase in professional fees primarily related to professional recruiting fees for the hiring of new R&D personnel to support and expand its clinical pipeline. Additionally, the Company incurred higher SEC filing fees associated with financing in February 2014.

Professional/outside services expense was \$997,000 during the six months ended March 31, 2014, compared to \$669,000 in the comparable prior period. The increase in professional fees primarily related to professional recruiting fees, SEC filing fees associated with Company financings, and higher NASDAQ fees based on a higher number of shares outstanding.

Patent expense was \$269,000 during the three months ended March 31, 2014, compared to \$200,000 in the comparable prior period. Patent expense was \$401,000 during the six months ended March 31, 2014, compared to \$450,000 in the comparable prior period. Patent expenses related to Calando declined by \$114,000 in the six month period, and \$57,000 in the three month period. Calando reduced its patent expense cost by terminating its license agreement with Caltech in August 2013, which had obligated Calando to pay certain related patent costs, and by curtailing prosecution of other non-strategic patents. Accordingly, patent expense related to Calando is expected to be negligible going forward. During the three months ended March 31, 2014, patent costs related to our DPC platform increased by \$130,000, more than offsetting the decrease in the Calando costs. This is due timing of patent filings. The Company continues to invest in patent protection for its DPC technology, related product candidates and other RNAi technology through patent filings in multiple countries internationally. The Company expects to extend and maintain protection for its current portfolios, as appropriate, and file new patent applications as technologies are developed and improved.

Facilities-related expense was \$48,000 during the three months ended March 31, 2014, compared to \$44,000 in the comparable prior period. Facilities-related expense was \$94,000 during the six months ended March 31, 2014, compared to \$86,000 in the comparable prior period. Facilities expense increased slightly due to routine increases in ancillary lease charges.

Travel expense was \$139,000 during the three months ended March 31, 2014, compared to \$93,000 in the comparable prior period. Travel expense was \$239,000 during the six months ended March 31, 2014, compared to \$191,000 in the comparable prior period. Travel expense increased due to travel in support of our R&D function, primarily our GMP manufacturing campaign.

Business insurance expense was \$57,000 during the three months ended March 31, 2014, compared to \$50,000 in the comparable prior period. Business insurance expense was \$112,000 during the six months ended March 31, 2014, compared to \$99,000 in the comparable prior period. Business insurance costs increased slightly primarily related to new coverage related to the Company's clinical trials.

Communication and technology expense was \$106,000 during the three months ended March 31, 2014 compared to \$51,000 in the comparable prior period. Communication and technology expense was \$164,000 during the six months ended March 31, 2014 compared to \$87,000 in the comparable prior period. The increase was related to equipment purchases to replace outdated equipment and to outfit new employees.

Office expense was \$96,000 during the three months ended March 31, 2014 compared to \$19,000 in the comparable prior period. Office expense was \$153,000 during the six months ended March 31, 2014 compared to \$60,000 in the comparable prior period. The increase was related to conferences/training, office supplies, miscellaneous administrative expenses, and staff amenities.

Other expense was \$43,000 during the three months ended March 31, 2014 compared to \$21,000 in the comparable prior period. Other expense was \$101,000 during the six months ended March 31, 2014 compared to \$56,000 in the comparable prior period. The increase was related to trade shows, conferences and marketing materials.

#### ***Research and Development Expenses – Three and six months ended March 31, 2014 compared to the three and six months ended March 31, 2013***

R&D expenses are related to the Company's on-going research and development efforts, primarily its laboratory research facility in Madison, Wisconsin, and also include outsourced R&D services. The following table provides detail of R&D expenses for the three and six months ended March 31, 2014, as compared to the three and six months ended March 31, 2013.

(in thousands, except percentages)

	Three months	% of	Three months	% of	Increase (Decrease)	
	Ended March 31, 2014	Expense Category	Ended March 31, 2013	Expense Category	\$	%
Outside labs & contract services	\$ 1,577	30%	\$ 288	14%	\$ 1,289	448%
In vivo studies	158	3%	446	21%	(288)	-65%
Drug Manufacturing	1,986	38%	486	23%	1,500	309%
Consulting	66	1%	70	3%	(4)	-6%
License, royalty & milestones	8	0%	134	6%	(126)	-94%
Laboratory supplies & services	467	9%	301	14%	166	55%
Clinical trials	652	13%	126	6%	526	417%
Facilities and related	286	6%	173	8%	113	65%
Sponsored research	-	0%	84	4%	(84)	-100%
Other research expenses	16	0%	17	1%	(1)	-6%
<b>Total</b>	<b>\$ 5,216</b>	<b>100%</b>	<b>\$ 2,125</b>	<b>100%</b>	<b>\$ 3,091</b>	<b>145%</b>

	Six months	% of	Six months	% of	Increase (Decrease)	
	Ended March 31, 2014	Expense Category	Ended March 31, 2013	Expense Category	\$	%
Outside labs & contract services	\$ 2,243	27%	\$ 535	15%	\$ 1,708	319%
In vivo studies	220	3%	808	22%	(588)	-73%
Drug Manufacturing	3,192	38%	703	19%	2,489	354%
Consulting	113	1%	132	4%	(19)	-14%
License, royalty & milestones	20	0%	162	4%	(142)	-88%
Laboratory supplies & services	856	10%	536	15%	320	60%
Clinical trials	1,188	14%	278	8%	910	327%
Facilities and related	479	6%	364	10%	115	32%
Sponsored research	-	0%	156	4%	(156)	-100%
Other research expenses	38	1%	28	1%	10	36%
<b>Total</b>	<b>\$ 8,349</b>	<b>100%</b>	<b>\$ 3,702</b>	<b>100%</b>	<b>\$ 4,647</b>	<b>126%</b>

Outside labs and contract services expense was \$1,577,000 during the three months ended March 31, 2014, compared to \$288,000 in the comparable prior period. Outside labs and contract services expense was \$2,243,000 during the six months ended March 31, 2014, compared to \$535,000 in the comparable prior period. The increase was primarily related to on-going preclinical toxicity studies in support of clinical trials for ARC-520, our HBV drug candidate.

In vivo studies expense was \$158,000 during the three months ended March 31, 2014, compared to \$446,000 in the comparable prior year period. During the six months ended March 31, 2014, in vivo expense was \$220,000 compared to \$808,000 in the comparable prior period. The prior period expense relates to preclinical non-GLP toxicology program costs related to our HBV program.

Drug manufacturing expense was \$1,986,000 during the three months ended March 31, 2014, compared to \$486,000 in the comparable prior year period. During the six months ended March 31, 2014, drug manufacturing expense was \$3,192,000 compared to \$703,000 in the comparable prior period. The current period expense relates to drug manufacturing to supply our Phase 2 clinical trials. Such costs incurred in the prior year were at a smaller scale.

Consulting expense was \$66,000 during the three months ended March 31, 2014, compared to \$70,000 in the comparable prior period. During the six months ended March 31, 2014, consulting expense was \$113,000 compared to \$132,000 in the comparable prior period. The majority of consulting expense during the current period relates to regulatory and clinical efforts.

Licensing fees, royalty and milestones expense was \$8,000 during the three months ended March 31, 2014, compared to \$134,000 in the comparable prior period. During the six months ended March 31, 2014, licensing fees, royalties and milestones expense was \$20,000 compared to \$162,000 in the comparable prior period. Licensing fees, royalty and milestones expenses in the prior year were primarily related to a one-time fee of \$120,000 related to access to certain targeting technology.

Laboratory supplies and services expense was \$467,000 during the three months ended March 31, 2014, compared to \$301,000 in the comparable prior period. During the six months ended March 31, 2014, laboratory supplies and service expense was \$856,000 compared to \$536,000 in the comparable prior period. The increase is a result of additional supplies necessary to support increased efforts in pre-clinical research and development.

Clinical trial expense was \$652,000 during the three months ended March 31, 2014, compared to \$126,000 in the comparable prior period. During the six months ended March 31, 2014, clinical trial expense was \$1,188,000 compared to \$278,000 in the comparable prior period. Clinical trial expenses are increasing as the Company advances ARC-520, its drug candidate for Hepatitis B.

Facilities expense was \$286,000 during the three months ended March 31, 2014, compared to \$173,000 in the comparable prior period. During the six months ended March 31, 2014, facilities expense was \$479,000 compared to \$364,000 in the comparable prior period. Facilities expenses were higher in the current period primarily due to repairs and maintenance costs on lab equipment. Although much of our equipment is under maintenance contracts, certain unplanned expenses were incurred during the current quarter.

Sponsored research expense was zero during the three months ended March 31, 2014, compared to \$84,000 in the comparable prior period. During the six months ended March 31, 2014, sponsored research expense was zero compared to \$156,000 in the comparable prior period. Sponsored research expense in the prior period relates to work at the University of Cincinnati related to our obesity program, which studies have been completed, and no further studies are currently planned.

#### ***Stock-based compensation expense***

Stock-based compensation expense, a noncash expense, was \$1,198,000 during the three months ended March 31, 2014, compared to \$355,000 during the comparable prior period. Stock-based compensation expense was \$1,719,000 during the six months ended March 31, 2014, compared to \$751,000 during the comparable prior period. Stock-based compensation expense is based upon the valuation of stock options granted to employees, directors, and certain consultants. Many variables affect the amount expensed, including the Company's stock price on the date of the grant, as well as other assumptions. The increase in this expense is primarily due to new options granted in 2013, including grants of restricted stock units.

#### ***Depreciation and amortization expense***

Depreciation and amortization expense, a noncash expense, was \$396,000 during the three months ended March 31, 2014, compared to \$449,000 during the comparable prior period. Depreciation and amortization expense was \$799,000 during the six months ended March 31, 2014, compared to \$898,000 during the comparable prior period. The decrease is primarily related to amortization of capitalized patents related to Calando, which were fully written off in fiscal 2013, thus no further amortization will be recorded.

#### ***Other income / expense***

Other expense was \$2,770,000 during the three months ended March 31, 2014, compared to other expense of \$1,549,000 in the comparable prior period. Other expense was \$6,447,000 during the six months ended March 31, 2014, compared to other expense of \$1,520,000 in the comparable prior period. The primary component of other expense during the three months ended March 31, 2014 was a change in the value of derivative liabilities in the amount of \$3.0 million related to certain warrants with a price adjustment feature, necessitating derivative accounting. Other items were comparatively smaller, and largely offset. Similarly, during the six months ended March 31, 2014, the change in the value of derivative liabilities was \$6.5 million comprising the majority of the balance of other expense.

#### **Off-Balance Sheet Arrangements**

We do not have any off-balance sheet arrangements or relationships.

#### **ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

Not applicable.

#### **ITEM 4. CONTROLS AND PROCEDURES**

Our Chief Executive Officer and our Chief Financial Officer, after evaluating our “disclosure controls and procedures” (as defined in Rules 13a-15(e) and 15d-15(e)) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) as of the end of the period covered by this Quarterly Report on Form 10-Q (the “Evaluation Date”), have concluded that, as of the Evaluation Date, our disclosure controls and procedures are effective to ensure that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and to ensure that information required to be disclosed by us in such reports is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer where appropriate, to allow timely decisions regarding required disclosure.

No change in the Company’s internal controls over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) of the Exchange Act) occurred during the Company’s most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

## PART II—OTHER INFORMATION

### ITEM 1. LEGAL PROCEEDINGS

From time to time, we may be involved in routine legal proceedings, as well as demands, claims and threatened litigation, which arise in the normal course of our business. We believe there is no litigation pending that could, individually or in the aggregate, have a material adverse effect on our results of operations or financial condition.

### ITEM 1A. Risk Factors

There have been no material changes to the risk factors included in our Annual Report on Form 10-K for the year ended September 30, 2013. Please carefully consider the information set forth in this Quarterly Report on Form 10-Q and the risk factors discussed in Part I, "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended September 30, 2013, which could materially affect our business, financial condition or future results. The risks described in our Annual Report on Form 10-K, as well as other risks and uncertainties, could materially and adversely affect our business, results of operations and financial condition, which in turn could materially and adversely affect the trading price of shares of our common stock. Additional risks not currently known or currently material to us may also harm our business.

### ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

### ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

### ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable.

### ITEM 5. OTHER INFORMATION

None.

**ITEM 6. EXHIBITS**

<b>Exhibit Number</b>	<b>Document Description</b>
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002*
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002*
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**
101	The following materials from Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014, formatted in XBRL (Extensible Business Reporting Language): (1) Consolidated Balance Sheets, (2) Consolidated Statements of Operations, (3) Consolidated Statement of Stockholders' Equity, (4) Consolidated Statements of Cash Flows, and (5) Notes to Consolidated Financial Statements. *

\* Filed herewith

\*\* Furnished herewith



**SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this Quarterly Report on Form 10-Q to be signed on its behalf by the undersigned, thereunto duly authorized.

Dated: May 6, 2014

ARROWHEAD RESEARCH CORPORATION

By: /s/ Kenneth A. Myszkowski  
Kenneth A. Myszkowski  
Chief Financial Officer

## CERTIFICATION PURSUANT SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Christopher Anzalone, Chief Executive Officer of Arrowhead Research Corporation, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Arrowhead Research Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 6, 2014

/s/ CHRISTOPHER ANZALONE

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**Christopher Anzalone**  
**Chief Executive Officer**

## CERTIFICATION PURSUANT SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Kenneth A. Myszkowski, Chief Financial Officer of Arrowhead Research Corporation, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Arrowhead Research Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 6, 2014

/s/ Kenneth A. Myszkowski

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**Kenneth A. Myszkowski,**  
**Chief Financial Officer**

**CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Christopher Anzalone, Chief Executive Officer of Arrowhead Research Corporation (the "Company"), certify, pursuant to Rule 13(a)-14(b) or Rule 15(d)-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350, that (i) the Quarterly Report on Form 10-Q of the Company for the quarterly period ended March 31, 2014, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and (ii) the information contained in such Quarterly Report on Form 10-Q fairly presents in all material respects the financial condition and results of operations of the Company.

Date: May 6, 2014

/s/ CHRISTOPHER ANZALONE

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**Christopher Anzalone**  
**Chief Executive Officer**

A signed original of these written statements required by 18 U.S.C. Section 1350 has been provided to Arrowhead Research Corporation and will be retained by Arrowhead Research Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

**CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Kenneth A. Myszkowski, Chief Financial Officer of Arrowhead Research Corporation (the "Company"), certify, pursuant to Rule 13(a)-14(b) or Rule 15(d)-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350, that (i) the Quarterly Report on Form 10-Q of the Company for the quarterly period ended March 31, 2014, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and (ii) the information contained in such Quarterly Report on Form 10-Q fairly presents in all material respects the financial condition and results of operations of the Company.

Date: May 6, 2014

/s/ Kenneth A. Myszkowski

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**Kenneth A. Myszkowski**  
**Chief Financial Officer**

A signed original of these written statements required by 18 U.S.C. Section 1350 has been provided to Arrowhead Research Corporation and will be retained by Arrowhead Research Corporation and furnished to the Securities and Exchange Commission or its staff upon request.