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

FORM 10-Q

(Mark One)

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

For the quarterly period ended March 31, 2011

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

Commission file number 000-21898

ARROWHEAD RESEARCH CORPORATION

(Exact name of registrant as specified in its charter)

Delaware
(State of incorporation)

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

225 S. Lake Avenue, Suite 300
Pasadena, California 91101
(626) 304-3400
(Address and telephone number of principal executive offices)

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 6, 2011 was 71,806,694.

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PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

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

	<u>March 31, 2011</u>	<u>September 30, 2010</u>
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$ 4,789,599	\$ 6,847,162
Trade receivable, net of allowance for doubtful accounts of \$90,789 at September 30, 2010	—	58,864
Other receivables	1,267,691	871,819
Prepaid expenses and other current assets	271,062	353,930
Marketable securities	2,253,030	—
TOTAL CURRENT ASSETS	8,581,382	8,131,775
PROPERTY AND EQUIPMENT		
Computers, office equipment and furniture	281,473	335,784
Research equipment	3,515	752,850
Software	77,020	150,445
Leasehold improvements	66,448	78,594
	428,456	1,317,673
Less: Accumulated depreciation and amortization	(396,308)	(1,176,404)
NET PROPERTY AND EQUIPMENT	32,148	141,269
OTHER ASSETS		
Rent deposit	—	34,735
Patents	1,852,115	2,046,836
Note Receivable, net	2,190,903	—
Derivative asset	606,250	—
Investment in Nanotope Inc., equity basis	1,786,927	1,812,927
Investment in Leonardo Biosystems Inc., at cost	187,000	187,000
TOTAL OTHER ASSETS	6,623,195	4,081,498
TOTAL ASSETS	\$ 15,236,725	\$ 12,354,542
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES		
Accounts payable	\$ 235,930	\$ 681,563
Accrued expenses	433,347	494,736
Accrued payroll and benefits	171,847	191,425
Derivative liabilities	1,653,810	2,408,522
Note payable	—	500,000
TOTAL CURRENT LIABILITIES	2,494,934	4,276,246
LONG-TERM LIABILITIES		
Note payable	519,716	—
TOTAL LONG-TERM LIABILITIES	519,716	—
Commitments and contingencies		
STOCKHOLDERS' EQUITY		
Arrowhead Research Corporation shareholders' equity:		
Preferred stock, \$0.001 par value; 5,000,000 shares authorized; no shares issued or outstanding	—	—
Common stock, \$0.001 par value; 145,000,000 shares authorized; 71,806,694 and 71,720,137 shares issued and outstanding as of March 31, 2011 and September 30, 2010, respectively	71,822	71,735
Additional paid-in capital	121,288,591	119,716,834
Accumulated deficit during the development stage	(109,275,312)	(110,742,867)
Total Arrowhead Research Corporation stockholders' equity	12,085,101	9,045,702
Noncontrolling interest	136,974	(967,406)
TOTAL STOCKHOLDERS' EQUITY	12,222,075	8,078,296
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 15,236,725	\$ 12,354,542

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, 2011		Three Months Ended March 31, 2010		Six Months Ended March 31, 2011		Six Months Ended March 31, 2010		May 7, 2003 (Inception) to March 31, 2011
REVENUE	\$ —		\$ —		\$ 296,139		\$ —		\$ 3,991,959
OPERATING EXPENSES									
Salaries	787,696		627,084		1,465,735		1,226,196		31,709,480
General and administrative expenses	822,812		484,623		1,454,373		1,064,561		23,156,568
Research and development	140,658		224,433		2,402,512		303,964		39,559,957
Patent amortization	60,452		60,452		120,904		120,904		1,661,040
TOTAL OPERATING EXPENSES	1,811,618		1,396,592		5,443,524		2,715,625		96,087,045
OPERATING LOSS	(1,811,618)		(1,396,592)		(5,147,385)		(2,715,625)		(92,095,086)
OTHER INCOME (EXPENSE)									
Gain (loss) on equity of investments - Nanotope	(74,827)		(50,599)		(26,000)		(99,237)		(586,073)
Gain on sale of stock in subsidiary	—		—		—		—		2,292,800
Gain (loss) on sale of fixed assets, net	—		—		—		—		(127,088)
Realized and unrealized gain in marketable securities	359,920		—		359,920		—		742,184
Interest income (expense), net	35,037		(7,473)		50,283		(18,467)		2,678,232
Change in value of derivatives	404,152		—		869,422		—		2,630,807
TOTAL OTHER INCOME (EXPENSE)	724,282		(58,072)		1,253,625		(117,704)		7,630,862
LOSS FROM CONTINUING OPERATIONS BEFORE INCOME TAXES	(1,087,336)		(1,454,664)		(3,893,760)		(2,833,329)		(84,464,224)
Provision for income taxes	—		—		—		—		—
LOSS FROM CONTINUING OPERATIONS	(1,087,336)		(1,454,664)		(3,893,760)		(2,833,329)		(84,464,224)
Income (loss) from discontinued operations	(132,495)		(687,933)		1,442,500		(1,555,697)		(46,826,293)
Gain (loss) on disposal of discontinued operations	3,919,213		—		3,919,213		430,000		4,708,588
INCOME (LOSS) FROM DISCONTINUED OPERATIONS	3,786,718		(687,933)		5,361,713		(1,125,697)		(42,117,705)
NET INCOME (LOSS)	2,699,382		(2,142,597)		1,467,953		(3,959,026)		(126,581,929)
Net (income) loss attributable to noncontrolling interests	205,855		288,637		(398)		560,139		17,470,578
NET INCOME (LOSS) ATTRIBUTABLE TO ARROWHEAD	\$2,905,237		\$(1,853,960)		\$1,467,555		\$(3,398,887)		\$(109,111,351)
	Basic	Diluted	Basic	Diluted	Basic	Diluted	Basic	Diluted	
Earnings per share - basic and diluted:									
Income (loss) from continuing operations attributable to Arrowhead common shareholders	\$ (0.01)	\$ (0.01)	\$ (0.02)	\$ (0.02)	\$ (0.05)	\$ (0.05)	\$ (0.04)	\$ (0.04)	
Income from discontinued operations attributable to Arrowhead common shareholders	0.05	0.05	(0.01)	(0.01)	0.07	0.07	(0.02)	(0.02)	
Net income (loss) attributable to Arrowhead shareholders	\$ 0.04	\$ 0.04	\$ (0.03)	\$ (0.03)	\$ 0.02	\$ 0.02	\$ (0.06)	\$ (0.06)	
Weighted average shares outstanding	71,806,694	78,913,948	62,922,539	62,922,539	71,792,902	79,947,015	60,774,007	60,774,007	

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, 2011
(unaudited)

	Common Stock		Additional Paid-in Capital	Subscription Receivable	Accumulated Deficit during the Development Stage	Noncontrolling interest	Totals
	Shares	Amount					
Initial Issuance of Stock:							
Common stock & warrants issued for cash @ \$0.001 per unit	3,000,000	\$ 3,000	\$ —	\$ —	\$ —	\$ —	\$ 3,000
Common stock & warrants issued for cash @ \$1.00 per unit	1,680,000	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)
Balance at September 30, 2003	4,680,000	4,680	1,510,320	—	(95,238)	—	1,419,762
Exercise of stock options	75,000	75	14,925	—	—	—	15,000
Common stock & warrants issued for cash @ \$1.00 per unit	475,000	475	474,525	—	—	—	475,000
Common stock & warrants issued for marketable securities @ \$1.00 per unit	500,000	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 @ \$1.50 per unit	6,608,788	6,609	9,906,573	—	—	—	9,913,182
Common stock issued in reverse acquisition	705,529	706	(151,175)	—	—	—	(150,469)
Common stock issued as a gift for \$1.09 per share	150,000	163	162,587	—	—	—	162,750
Common stock and warrants issued as stock issuance cost @ \$1.50 per unit	356,229	356	533,988	—	—	—	534,344
Stock issuance cost charged to additional paid-in capital	—	—	(991,318)	—	—	—	(991,318)
Exercise of stock option @ \$0.20 per share	75,000	75	14,925	—	—	—	15,000
Exercise of stock options @ \$1.00 per share	6,000	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)
Balance at September 30, 2004	13,631,546	13,645	12,059,997	—	(2,624,192)	1,777,699	11,227,149
Exercise of warrants @ \$1.50 per share	13,812,888	13,813	20,705,522	—	—	—	20,719,335
Exercise of stock options @ \$1.00 per share	25,000	25	24,975	—	—	—	25,000
Common stock issued to purchase Insert Therapeutics share @ \$3.98 per share	502,260	502	1,999,498	—	—	—	2,000,000
Common stock issued for services	12,500	12	49,988	—	—	—	50,000
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)
Balance at September 30, 2005	27,984,194	27,997	35,578,580	—	(9,479,110)	1,899,190	28,026,657
Exercise of stock options	115,794	116	341,421	—	—	—	341,537
Common stock issued @ \$4.88 per share	204,854	205	999,795	—	—	—	1,000,000
Common stock issued @ \$3.84 per share	15,000	15	57,585	—	—	—	57,600
Common stock issued @ \$3.50 per share	5,590,000	5,590	19,539,410	—	—	—	19,545,000
Common stock issued @ \$5.91 per share	25,364	25	149,975	—	—	—	150,000
Common stock issued to purchase Calando Pharmaceuticals, Inc. @ \$5.17 per share	208,382	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)
Balance at September 30, 2006	34,143,588	34,156	59,113,369	—	(28,476,319)	934,438	31,605,644
Exercise of stock options	186,164	186	434,541	—	—	—	434,727
Common stock issued @ \$5.78 per share, net 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. @ \$3.77 per share	1,431,222	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)
Balance at September 30, 2007	38,610,420	38,622	84,672,783	—	(58,407,437)	152,609	26,456,577
Exercise of stock options	105,357	106	289,921	—	—	—	290,027
Common stock issued at approximately \$1.80 per share, net Arrowhead's increase in proportionate share of Unidym's equity	—	—	1,720,962	—	—	—	1,720,962

Common stock issued @ \$2.72 per share to Rice University	50,000	50	135,950	—	—	—	136,000
Common stock issued @ \$2.83 per share to purchase shares of Unidym, Inc.	70,547	71	199,929	—	—	—	200,000
Common stock issued @ \$2.95 per share to purchase MASA Energy, LLC	105,049	105	309,895	—	—	—	310,000
Common stock issued @ \$2.19 per share to Unidym for the acquisition of Nanoconduction	114,155	114	249,886	—	—	—	250,000
Common stock issued @ \$2.18 per share	15,000	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)
Balance at September 30, 2008	42,934,517	42,950	97,756,126	—	(85,496,467)	—	12,302,609
Common Stock issued @ \$0.55 per share to Unidym stockholder in exchange for Unidym's shares	2,058,393	2,059	1,131,617	—	—	—	1,133,676
Common Stock issued @ \$0.52 per share to TEL Ventures in exchange for Unidym's shares	2,222,222	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 issued @ \$0.30 per share	9,196,642	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)
Balance at September 30, 2009	56,411,774	56,428	110,070,327	(300,000)	(104,968,819)	—	4,857,936
Exercise of stock options	6,875	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 issued @ \$0.63 per share	5,083,430	5,083	3,217,813	—	—	—	3,222,896
Common stock issued @ \$1.312 per share	6,592,989	6,593	3,692,078	—	—	—	3,698,671
Common Stock issued to Calando stockholders in exchange for Calando's shares	1,220,000	1,220	(160,667)	—	—	159,447	—
Common Stock issued to Unidym stockholders in exchange for Unidym's shares	153,176	153	(1,435)	—	—	1,282	—
Stock-based compensation	—	—	1,582,149	—	—	—	1,582,149
Exercise of warrants	2,251,893	2,251	1,063,600	—	—	200	1,066,051
Net loss for the year ended September 30, 2010	—	—	—	—	(5,774,048)	(1,182,990)	(6,957,038)
Balance at September 30, 2010	71,720,137	71,735	119,716,834	\$ —	(110,742,867)	(967,406)	8,078,296
Exercise of warrants	86,557	87	43,192	—	—	—	43,279
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	—	—	759,763	—	—	—	759,763
Net income (loss) for the six months ended March 31, 2011	—	—	—	—	1,467,555	398	1,467,953
Balance at March 31, 2011	71,806,694	\$71,822	\$ 121,288,591	—	\$ (109,275,312)	\$ 136,974	\$ 12,222,075

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, 2011	Six Months Ended March 31, 2010	May 7, 2003 (Date of inception) to March 31, 2011
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net Income (Loss)	\$ 1,467,953	\$ (3,959,026)	\$ (126,581,929)
Net (income) loss attributable to noncontrolling interests	(398)	560,139	17,470,578
Net loss attributable to Arrowhead	1,467,555	(3,398,887)	(109,111,351)
(Income) loss from discontinued operations	(5,361,713)	1,125,697	42,117,705
Realized and unrealized (gain) loss on investment	(359,920)	—	(1,442,183)
(Gain) loss from sale of subsidiary	—	—	(306,344)
Loss on sale/donation of fixed assets	—	—	66,493
Stock issued as gift	—	—	298,750
Stock issued for professional services	—	—	248,997
Stock issued for in-process research and development	—	—	13,166,347
Change in value of derivatives	(869,422)	—	(2,630,807)
Purchased in-process research and development - Nanoconduction	—	—	2,685,208
Stock-based compensation	732,244	505,171	12,407,148
Depreciation and amortization	136,569	140,473	5,528,903
Amortization of note discount	15,469	—	15,469
Gain on sale of stock in subsidiary	—	—	(2,292,800)
Non-cash (gain) loss from equity investment	26,000	99,238	586,073
Noncontrolling interest	398	(560,139)	(17,470,578)
Gain on renegotiation of accrued severance	—	—	(726,500)
Changes in operating assets and liabilities:	—	—	—
Receivables	—	(113,273)	(62,815)
Other receivables	(395,562)	(350,000)	(1,264,272)
Prepaid expenses	(42,768)	138,173	(284,342)
Other current assets	—	—	(114,833)
Deposits	(32,759)	(9,885)	(69,554)
Accounts payable	(172,011)	17,715	(122,657)
Accrued expenses	(185,544)	22,009	(103,847)
Accrued severance and other liabilities	15,449	(5,309)	974,063
NET CASH USED IN OPERATING ACTIVITIES OF CONTINUING OPERATIONS	(5,026,015)	(2,389,017)	(57,907,727)
CASH FLOWS FROM INVESTING ACTIVITIES OF CONTINUING OPERATIONS:			
Purchase of marketable securities - US Treasury Bills	—	—	(18,575,915)
Purchase of property and equipment	(5,880)	—	(3,561,805)
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 marketable securities - US Treasury Bills	—	—	18,888,265
Proceeds from sale of investments	589,696	—	1,859,609
Proceeds from sale of subsidiaries	—	—	359,375
Proceeds from sale of fixed assets	—	—	142,375
Payment for patents	—	—	(303,440)
Restricted cash	—	—	50,773
Cash transferred in sale of subsidiary	(1,700,398)	—	(1,700,398)
NET CASH USED IN INVESTING ACTIVITIES OF CONTINUING OPERATIONS	(1,116,582)	—	(4,711,567)
CASH FLOWS FROM FINANCING ACTIVITIES OF CONTINUING OPERATIONS:			
Proceeds from issuance of Calando debt	—	—	2,516,467
Proceeds from sale of stock in subsidiary	—	—	19,175,168
Proceeds from issuance of common stock and warrants, net	1,762,436	3,981,159	92,549,827
NET CASH PROVIDED BY FINANCING ACTIVITIES OF CONTINUING OPERATIONS	1,762,436	3,981,159	114,241,462
Cash flows from discontinued operations:			
Operating cash flows	2,322,598	(1,019,207)	(45,946,194)
Investing cash flows	—	430,000	790,625
Financing cash flows	—	(430,115)	(1,677,000)
Net cash provided by (used in) discontinued operations:	2,322,598	(1,019,322)	(46,832,569)
NET INCREASE (DECREASE) IN CASH	(2,057,563)	572,820	4,789,599
CASH AT BEGINNING OF PERIOD	6,847,162	2,020,224	—
CASH AT END OF PERIOD	\$ 4,789,599	\$ 2,593,044	\$ 4,789,599

Supplementary disclosures:

Interest paid	\$ 105,000	\$ 21,948	\$ 230,419
Taxes paid	\$ 742,500	\$ —	\$ 742,500

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

SUPPLEMENTAL NON-CASH TRANSACTIONS

On March 23, 2005, Arrowhead Research Corporation (“Arrowhead”) purchased 7,375,000 shares of Insert Therapeutics, Inc. (“Insert”) common stock from two minority stockholders of Insert for 502,260 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. (“Calando”) common stock from minority stockholders of Calando for \$1,928,000 consisting of 208,382 newly issued shares of Arrowhead Common Stock valued at \$1,077,333 plus \$850,667 in cash. The 208,382 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 1,431,222 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, Inc. (“Unidym”), Carbon Nanotechnologies, Inc., Arrowhead and others.

On April 23, 2008, Arrowhead purchased 200,000 shares of the common stock of Unidym in exchange for 70,547 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 105,049 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 114,115 shares of Arrowhead Common Stock with an estimated fair market value of \$250,000.

On June 11, 2009, Arrowhead issued 1,324,625 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 1,944,444 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 91,495 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 642,273 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 277,778 shares of Common Stock with an estimated fair market value of \$186,111 in exchange for an equal number of shares of Series C-1 Preferred Stock of Unidym, with a minority stockholder of Unidym.

In October and November 2009, Arrowhead issued 153,176 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 1,140,000 shares of Common Stock with an estimated fair market value of \$706,800 in exchange for 2,850,000 shares of Calando common stock, with several minority stockholders of Calando. In conjunction with the exchange, Arrowhead also issued 240,000 Warrants to purchase Arrowhead Common Stock in exchange for 600,000 Warrants to purchase Calando common stock.

In February 2010, Arrowhead issued 80,000 shares of Common Stock and 24,000 warrants to purchase Arrowhead Common Stock, at an exercise price of \$0.50, 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 247,880 warrants to purchase Arrowhead Common Stock, in a cashless exercise, whereby Arrowhead issued to the warrant holder 128,707 shares of Arrowhead Common Stock.

In September 2010, Arrowhead issued warrants to purchase 3,906,250 shares of Arrowhead Common Stock, at an exercise price of \$0.50, to two Calando shareholders, in exchange for 1,562.5 shares of Series A Preferred Stock of Calando Pharmaceuticals, Inc.

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

Arrowhead Research Corporation
Notes to Consolidated Financial Statements
(Unaudited)

Unless otherwise noted, (1) the term “Arrowhead” refers to Arrowhead Research Corporation, a Delaware corporation formerly known as InterActive Group, Inc., (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 Calando Pharmaceuticals, Inc. (“Calando”), Unidym, Inc. (“Unidym”), which was divested in January 2011, Ablaris Therapeutics, Inc. (“Ablaris”), Agonn Systems, Inc. (“Agonn”), and Tego Biosciences Corporation (“Tego”), the term “Minority Investments” refers collectively to Nanotope, Inc. (“Nanotope”) and Leonardo Biosystems, Inc. (“Leonardo”) in which the company holds a less than majority ownership position, and (4) the term “Common Stock” refers to Arrowhead’s Common Stock and the term “stockholder(s)” refers to the holders of Common Stock or securities exercisable for Common Stock.

NOTE 1. ORGANIZATION AND ACCOUNTING POLICIES

Nature of Business

Arrowhead Research Corporation is a nanomedicine company developing innovative therapeutic products at the interface of biology and nanoengineering to cure disease and improve human health. Arrowhead addresses its target markets through ownership in subsidiaries that are selected based on synergies in their technology, and clinical and business strategies. By focusing on specific related applications of nanomedicine, Arrowhead and its subsidiaries leverage shared expertise and resources to develop pioneering therapeutic platforms for large unmet medical needs. Arrowhead is currently focused on the preclinical and clinical development of therapeutics for the treatment of cancer and obesity, as well as the regeneration of wounded or diseased tissue.

Arrowhead’s portfolio includes two majority owned subsidiaries, Calando, a leader in delivering small RNAs for gene silencing, and Ablaris, an anti-obesity therapeutics company, and minority investments in Nanotope, a regenerative medicine company and Leonardo, a multistage drug delivery company.

Liquidity

Arrowhead has historically financed its operations through the sale of securities of Arrowhead and its Subsidiaries. Development activities at our Subsidiaries has required significant capital investment since the Company’s inception and we expect our current portfolio companies to continue to require cash investment in fiscal 2011 and beyond to continue development.

At March 31, 2011, the Company had approximately \$4.8 million in cash to fund operations. During the first six months of fiscal 2011, the Company’s cash position decreased by \$2.1 million, primarily due to operational spending at Arrowhead and Calando. In January 2011, Arrowhead sold its ownership interest in Unidym; therefore the cash burn associated with Unidym ceased in January 2011. As a result of the sale of Unidym, the Company received \$2.5 million in stock of the acquirer, Wisepower Co. Ltd. (“Wisepower”) and a \$2.5 million convertible bond from Wisepower, of which approximately \$200,000 is owed to a third party. As of March 31, 2011, the Company sold approximately 20% of the stock for approximately \$600,000. As of March 31, 2011, the remaining shares, net of amount owed to third parties, had a market value of approximately \$2.1 million. The terms of the agreements with Wisepower allow for the sale of the stock over time, subject to certain trading limitations ending in October 2011. Arrowhead intends to dispose it remaining shares as allowed, subject to market conditions. The convertible bond with a face value of \$2.5 million is convertible into Wisepower common stock beginning in January 17, 2012 at a price of \$2.00 per share, and at that point would represent an additional source of liquidity for the company, subject to the then-current market value of the common stock. Finally, the Company has the ability to exercise the redemption feature of certain warrants outstanding which could yield proceeds of approximately \$4.0 million. Based upon the Company’s cash on hand, other sources of liquidity, as described above, and based upon the Company’s operating plan, the Company’s management anticipates that the Company will be able to satisfy the cash requirements of its operations through at least the next twelve months. The Company anticipates that further equity financings, and/or asset sales and license agreements will be necessary to continue to fund operations in the future.

Basis of Presentation and Principles of Consolidation

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 10 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, 2010 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, 2010.

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The consolidated financial statements of the Company include the accounts of Arrowhead and its wholly-owned and majority-owned Subsidiaries. Prior to April 2008, Arrowhead's Subsidiaries included Insert Therapeutics, Inc. ("Insert"), which was merged with Calando in April 2008. The merged entity is majority-owned by Arrowhead and continues to operate under the name of Calando. On January 17, 2011, Arrowhead sold its interests in Unidym to Wisepower, and on December 23, 2009, Tego completed a sale of its assets to Luna Innovations, Inc. Unidym and Tego results are included in the Income (Loss) from Discontinued Operations. Income (Loss) from Discontinued Operations also includes Aonex Technologies, Inc. ("Aonex"), sold in May 2008 and Nanotechnica, Inc. ("Nanotechnica"), dissolved in June 2005. All significant intercompany accounts and transactions are eliminated in consolidation, and noncontrolling interests are accounted for in the Company's financial statements. 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.

Recently Issued Accounting Standards

In June 2010, the FASB issued ASU No. 2010-17, *Revenue Recognition—Milestone Method (Topic 605): Milestone Method of Revenue Recognition*. This ASU codifies the consensus reached in EITF Issue No. 08-9, "Milestone Method of Revenue Recognition." The amendments to the Codification provide guidance on defining a milestone and determining when it may be appropriate to apply the milestone method of revenue recognition for research or development transactions. Consideration that is contingent on achievement of a milestone in its entirety may be recognized as revenue in the period in which the milestone is achieved only if the milestone is judged to meet certain criteria to be considered substantive. Milestones should be considered substantive in their entirety and may not be bifurcated. An arrangement may contain both substantive and nonsubstantive milestones, and each milestone should be evaluated individually to determine if it is substantive. This guidance was adopted effective October 1, 2010. The adoption of this guidance did not have a material impact on our consolidated financial statements.

In January 2010, the FASB issued Accounting Standards Update ASU No. 2010-06, "Fair Value Measurements and Disclosures (Topic 820) – Improving Disclosures about Fair Value Measurements". This guidance requires new disclosures related to recurring and nonrecurring fair value measurements. The guidance requires disclosure of transfers of assets and liabilities between Level 1 and Level 2 of the fair value measurement hierarchy, including the reasons and the timing of the transfers and information on purchases, sales, issuance, and settlements on a gross basis in the reconciliation of the assets and liabilities measured under Level 3 of the fair value measurement hierarchy. The adoption of this guidance is effective for interim and annual reporting periods beginning after December 15, 2009. We have adopted this guidance in the financial statements presented herein, which did not have a material impact on our consolidated financial position or results of operations.

In October 2009, the FASB issued ASU 2009-13, which amends ASC Topic 605, *Revenue Recognition*. This new accounting guidance relates to the revenue recognition of multiple element arrangements. The new guidance states that if vendor specific objective evidence or third party evidence for deliverables in an arrangement cannot be determined, companies will be required to develop a best estimate of the selling price for separate deliverables and allocate arrangement consideration using the relative selling price method. We adopted this guidance as of January 1, 2010 on a prospective basis. The adoption of this guidance did not have a material impact on our consolidated financial statements.

In October 2009, the FASB issued authoritative guidance on multiple-deliverable revenue arrangements, ASC 605-25. This guidance amends the existing criteria for separating consideration received in multiple-deliverable arrangements and requires that arrangement consideration be allocated at the inception of the arrangement to all deliverables based on their relative selling price. The guidance establishes a hierarchy for determining the selling price of a deliverable which is based on vendor-specific objective evidence, third-party evidence, or management estimates. Expanded disclosures related to multiple-deliverable revenue arrangements are also required. This guidance is effective for the Company beginning fiscal year 2011. We have adopted this guidance in the financial statements presented herein, which did not impact our consolidated financial position or results of operations.

On July 1, 2009, the FASB issued the FASB Accounting Standards Codification (the Codification). The Codification became the single source of authoritative non-governmental U.S. generally accepted accounting principles ("GAAP"), superseding existing FASB, American Institute of Certified Public Accountants ("AICPA"), Emerging Issues Task Force ("EITF") and related literature. The Codification eliminates the previous US GAAP hierarchy and establishes one level of authoritative GAAP. All other literature is considered non-authoritative. The Codification was effective for interim and annual periods ending after September 15, 2009. The Company adopted the Codification for the year ended September 30, 2009. This guidance did not change GAAP; therefore it did not have an impact on our consolidated financial statements. References within this note and throughout our financial statements to authoritative guidance issued by the FASB are in reference to the codification.

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In June 2009, the FASB issued guidance codified as ASC 470-20, regarding accounting for own-share lending arrangements in contemplation of convertible debt issuance, which changes the accounting for equity share lending arrangements on an entity's own shares when executed in contemplation of a convertible debt offering. This guidance requires the share lending arrangement to be measured at fair value and recognized as an issuance cost. These issuance costs should then be amortized as interest expense over the life of the financing arrangement. Shares loaned under these arrangements should be excluded from computation of earnings per share. This guidance is effective for fiscal years beginning after December 15, 2009 and requires retrospective application for all arrangements outstanding as of the beginning of the fiscal year. We have adopted this guidance in the financial statements presented herein, which did not impact our consolidated financial position or results of operations.

In June 2009, the FASB issued amendments to the accounting rules for variable interest entities (VIEs) and for transfers of financial assets, codified as ASC 860-10. The new guidance for VIEs eliminates the quantitative approach previously required for determining the primary beneficiary of a variable interest entity and requires ongoing qualitative reassessments of whether an enterprise is the primary beneficiary. In addition, qualifying special purpose entities ("QSPEs") are no longer exempt from consolidation under the amended guidance. The amendments also limit the circumstances in which a financial asset, or a portion of a financial asset, should be derecognized when the transferor has not transferred the entire original financial asset to an entity that is not consolidated with the transferor in the financial statements being presented, and/or when the transferor has continuing involvement with the transferred financial asset. This guidance is effective as of the beginning of a reporting entity's first annual reporting period that begins after November 15, 2009 and for interim periods within the first annual reporting period. This guidance became effective on October 1, 2010. We have adopted this guidance in the financial statements presented herein, which did not impact our consolidated financial position or results of operations.

NOTE 2. INVESTMENT IN SUBSIDIARIES

Calando Pharmaceuticals, Inc. (formerly known as Insert Therapeutics, Inc. "Insert")

Calando is a clinical stage nanobiotechnology company at the forefront of RNAi therapeutics. Calando is developing nanoparticle therapeutics that use our patented sugar (cyclodextrin)-based polymer technologies as a drug delivery system for siRNA.

On April 17, 2008, Calando merged with and into Insert, with Insert as the surviving company. Prior to the merger, Arrowhead invested an aggregate of \$23.2 million in Calando through the purchase of equity and loans. As a condition of the merger, the Preferred Stock of each of Calando and Insert was converted into common stock and the loans were converted to equity. As a result of the merger, shares of Insert common stock were issued to the stockholders of the former Calando, and Insert changed its name to Calando Pharmaceuticals, Inc.

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 is due November 26, 2013; see Note 4 for further information.

In fiscal 2010, Arrowhead issued 1,220,000 shares of its Common Stock in exchange for 3,050,000 shares of Calando common stock, with several minority stockholders of Calando. In conjunction with this exchange, Arrowhead also issued 264,000 warrants to purchase Arrowhead Common Stock in exchange for 660,000 warrants to purchase Calando common stock. Also in fiscal 2010, Arrowhead issued warrants to purchase up to 3,906,250 shares of its Common Stock in exchange for 1,562.5 shares of Calando Series A Preferred Stock. The Calando Series A Preferred Stock have a liquidation preference and are convertible into 3,381,303 shares of Calando common stock.

In January 2011, Arrowhead invested \$9.1 million, through a cash investment of \$1.0 million and the conversion of \$8.1 million intercompany debt, acquiring newly issued Calando Series B and Series C preferred stock.

As of March 31, 2011, Arrowhead had advances outstanding to Calando totaling \$0.3 million.

As of March 31, 2011, Arrowhead owned 79% of the outstanding shares of Calando and 73% on a fully diluted basis.

Ablaris Therapeutics, Inc.

Ablaris was formed and began operations in the first quarter of fiscal 2011 through the licensing of certain anti-obesity technology developed at the MD Anderson Cancer Center at the University of Texas. During the quarter ended March 31, 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 Series A Preferred stock.

As of March 31, 2011, Arrowhead owned 64% of the outstanding shares of Ablaris and 64% on a fully diluted basis.

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Nanotope, Inc.

Nanotope is developing advanced nanomaterials for the treatment of spinal cord injuries, cartilage regeneration and wound healing. As of March 31, 2011, Arrowhead owned 23% of the outstanding shares of Nanotope, 19% on a fully diluted basis. Arrowhead accounts for its investment in Nanotope using the equity method of accounting. As of March 31, 2011, Nanotope had indebtedness to Arrowhead in the amount of \$1.0 million, which Arrowhead has included in other receivables. It is expected that this indebtedness will be repaid or converted to equity.

Summarized financial information for Nanotope, Inc. is as follows:

	<u>March 31, 2011</u>	<u>September 30, 2010</u>
Current assets	\$ 422,000	\$ 16,000
Non-current assets	108,000	130,000
Liabilities	1,083,000	585,000
Equity	(553,000)	(439,000)

	<u>For the three months ended March 31, 2011</u>	<u>For the three months ended March 31, 2010</u>	<u>For the six months ended March 31, 2011</u>	<u>For the six months ended March 31, 2010</u>
Revenue	\$ 17,000	\$ 9,000	\$ 513,000	\$ 9,000
Operating expenses	338,000	242,000	613,000	457,000
Net loss	(325,000)	(233,000)	(113,000)	(448,000)

	<u>For the six months ended March 31, 2011</u>	<u>For the six months ended March 31, 2010</u>
Cash flows used in operating activities	\$ (417,000)	\$ (343,000)
Cash flows used in investing activities	(20,000)	(7,000)
Cash flows provided by financing activities	—	—

Leonardo Biosystems, Inc.

Leonardo is developing a drug-delivery platform technology based on novel methods of designing spheroid porous silicon microparticles that selectively accumulate in tumor vasculature. Arrowhead accounts for its investment in Leonardo using the cost method of accounting. As of March 31, 2011, Leonardo had indebtedness to Arrowhead in the amount of \$255,000, included in other receivables, which is expected to be repaid or converted to equity. As of March 31, 2011, Arrowhead's ownership interest in Leonardo was 5%.

NOTE 3. DISCONTINUED OPERATIONS

Unidym, Inc.

Unidym, Inc. was founded by Arrowhead in 2005. Through the license of intellectual property and the acquisition of three development stage nanotechnology companies in 2006, 2007 and 2008, Unidym acquired the rights to key patents for the manufacture and application of carbon nanotubes. In line with the Company's strategy to focus on nanomedicine, Arrowhead sold its ownership interest in Unidym to Wisepower in January 2011. The consideration included \$5.0 million in Wisepower stock and bonds, a percentage of certain revenue streams, as well as contingent payments up to \$140 million based on revenue milestones over a ten-year period.

In conjunction with the disposition of Unidym, the gain on the sale and the results of historical operations are recorded as discontinued operation in the Company's Statements of Operations. Additionally, the cash flows from Unidym are reflected separately as cash flows from discontinued operations. Potential future cash flows as discussed above will be reflected as a part of cash flows from discontinued operations in the Company's Consolidated Statements of Cash Flows.

Tego Biosciences, Inc.

On April 20, 2007, Tego, a wholly-owned subsidiary of Arrowhead, acquired the assets of C Sixty, Inc., a Texas-based company developing protective products based on the anti-oxidant properties of fullerenes.

On December 23, 2009, Tego completed the sale of all of its non-cash intellectual property assets ("Tego IP") to Luna Innovations, Inc. ("Luna") under the terms of the Tego-Luna Asset Purchase Agreement dated November 13, 2009 ("APA"). The Tego IP includes a portfolio of Tego-owned foreign and domestic patents and patent applications. The Tego IP also includes patent

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licenses from Siemens AG and Washington University, St. Louis. Under the APA, Luna agreed to assume Tego's role as licensor under a license Tego granted under the Tego IP to The Bronx Project, Inc. ("TBP") to develop carboxyfullerenes in the field of neuronal injury (the "TBP License"). Luna also assumed Tego's role as licensor under the exclusive license Tego granted to Arrowhead's affiliate Unidym, under the Tego IP in the field of industrial non-pharmaceutical fullerenes.

Luna paid to Tego an upfront purchase price of \$350,000 and reimbursements of patent and license expenses of \$80,000. Further, under the terms of the APA, Luna will pay Tego 10% of any revenues it receives from its licensing or resale of the Tego IP. Tego shall also receive from Luna 50% of any net proceeds Luna receives from the TBP License. Tego shall receive royalties from Luna for any sales of fullerene products covered by the Tego IP, as well as clinical development milestones totaling \$4.25 million for each fullerene product it develops that is covered by the Tego IP.

Due to the sale of substantially all of Tego's assets, the operations of Tego ceased and the gain on the sale and the results of historical operations are recorded as discontinued operation in the Company's Statements of Operations. Additionally, the cash flows from Tego are reflected separately as cash flows from discontinued operations. Potential future cash flows associated with the Luna APA, as discussed above, will be reflected as a part of cash flows from discontinued operations in the Company's Consolidated Statements of Cash Flows.

NOTE 4. 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 2013. The terms of the new note include a 10% interest rate and require two times principal payment upon certain events as defined in the note, and at maturity.

NOTE 5. STOCKHOLDERS' EQUITY

At March 31, 2011, 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, 2011, 71,806,694 shares of Common Stock were outstanding. At March 31, 2011, 1,532,000 shares and 9,731,435 shares were reserved for issuance under Arrowhead's 2000 Stock Option Plan and 2004 Equity Incentive Plan, respectively.

On July 17, 2009 and August 6, 2009, the Company sold an aggregate of 9,196,642 units in a private placement transaction with institutional and accredited investors. Each unit consisted of one share of Arrowhead Common Stock and a warrant to purchase an additional share of Common Stock exercisable at \$0.50 per share; the unit price was \$0.30. The warrants became exercisable on January 18, 2010 and February 7, 2010, and remain exercisable until June 30, 2014. The warrants can be called for redemption by the Company as the redemption feature provided for in the warrants has been met. Gross proceeds of the offering totaled approximately \$2.8 million.

On December 11, 2009, the Company sold an aggregate of 5,083,430 units in a private placement transaction with accredited investors. Each unit consisted of one share of Arrowhead Common Stock and a warrant to purchase an additional share of Common Stock exercisable at \$0.509 per share. The unit price was \$0.634, based upon the closing bid price on the Company's Common Stock on December 11, 2009, which was \$0.509, plus \$0.125 for the purchase of the warrant. The warrants became exercisable on June 12, 2010 and remain exercisable until December 11, 2014. The warrants can be called for redemption by the Company as the redemption feature provided for in the warrants has been met. Gross proceeds of the offering were approximately \$3.2 million.

On June 17, 2010, the Company sold an aggregate of 6,592,989 units at a price of \$1.312 per unit in a registered offering to institutional and individual investors. Each unit consisted of one share of Arrowhead Common Stock and a warrant to purchase 0.5 share of Common Stock exercisable at \$1.65 per share. The warrants contain an antidilution provision which can result in an adjustment to the exercise price under certain circumstances (see Note 9 for additional information). Gross proceeds from the offering were \$8.65 million before deducting placement agent commission and other offering expenses.

The following table summarizes information about warrants outstanding at March 31, 2011:

<u>Exercise prices</u>	<u>Number of Warrants</u>	<u>Remaining Life in Years</u>
\$7.06	948,969	6.1
\$2.00	3,863,999	2.4
\$0.50	11,630,335	3.7
\$0.51	4,610,244	3.7
\$1.65	3,296,497	4.7
Total warrants outstanding	<u>24,350,044</u>	

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NOTE 6. LEASES

As of March 31, 2011, the Company leased the following facility:

	<u>Lab/Office Space</u>	<u>Monthly Rent</u>	<u>Lease Commencement</u>	<u>Lease Term</u>
Arrowhead Pasadena, CA	7,388 sq ft	\$18,470	March 1, 2006	62 Months

Facility and equipment rent expense for the three months ended March 31, 2011 and 2010 was \$65,796 and \$60,490, respectively. For the six months ended March 31, 2011 and 2010, rent expense was \$106,926 and \$130,129, respectively. From inception to date, rent expense has been \$3,590,548. Rent expense related to Unidym is included as a part of income/loss from discontinued operations

NOTE 7. STOCK-BASED COMPENSATION

Arrowhead has two plans that provide for equity-based compensation. Under the 2000 Stock Option Plan, 1,532,000 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 9,731,435 shares for the grant of stock options, stock appreciation rights, restricted stock awards and performance unit/share awards by the Board of Directors to employees, consultants and others. As of March 31, 2011, there were options granted and outstanding to purchase 1,532,000 and 5,935,188 shares of Common Stock under the 2000 Stock Option Plan and the 2004 Equity Incentive Plan, respectively. During the quarter ended March 31, 2011, no options were granted under the 2004 Equity Incentive Plan.

The following tables summarize information about stock options:

	<u>Number of Options Outstanding</u>	<u>Weighted- Average Exercise Price Per Share</u>	<u>Weighted- Average Remaining Contractual Term</u>	<u>Aggregate Intrinsic Value</u>
Balance At September 30, 2009	2,901,588	\$ 1.73		
Granted	5,251,750	0.69		
Cancelled	(23,125)	1.11		
Exercised	(6,875)	1.11		
Balance At September 30, 2010	8,123,338	1.06		
Granted	—	—		
Cancelled	(646,150)	2.89		
Exercised	—	—		
Balance At March 31, 2011	7,477,188	\$ 0.90	7.6 years	\$851,378
Exercisable At March 31, 2011	4,694,104	\$ 0.98	7.3 years	\$334,024

Stock-based compensation expense for the six months ended March 31, 2011 and 2010 was \$759,762 and \$598,228, respectively. Stock-based compensation expense, except for the portion of stock-based compensation expense relating to Unidym, is included in Salaries expense in the Company's consolidated statements of operations. Stock-based compensation expense related to Unidym is included in income/loss from discontinued operations. 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 result of the loss creates a timing difference, resulting in a deferred tax asset, which is fully reserved by a valuation allowance.

As of March 31, 2011, the pre-tax compensation expense for all unvested stock options at Arrowhead in the amount of approximately \$1,531,163 will be recognized in our results of operations over a weighted average period of 2.4 years. As of March 31, 2011, the pre-tax compensation expense for all unvested stock options at Calando in the amount of approximately \$205,137 will be recognized in our results of operations over a weighted average period of 1.1 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

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provide a reliable single measure of the fair value of its employee stock options. The assumptions used to value Arrowhead stock options granted are as follows:

	Six Months Ended March 31,	
	2011 (1)	2010
Dividend yield	N/A	—
Risk-free interest rate	N/A	2.83% to 3.11%
Volatility	N/A	100%
Expected life (in years)	N/A	5
Weighted average grant date fair value per share of options granted	N/A	\$0.44

(1) There were no Arrowhead stock options granted during the six months ended March 31, 2011.

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

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

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

NOTE 8. FAIR VALUE MEASUREMENTS & DERIVATIVE INSTRUMENTS

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, 2011 for assets and liabilities measured at fair value on a recurring basis:

	Level I	Level II	Level III	Total
Cash and cash equivalents	\$4,789,599	\$ —	\$ —	\$4,789,599
Marketable securities	\$2,253,030	\$ —	\$ —	\$2,253,030
Derivative assets	\$ —	\$ —	\$ 606,250	\$ 606,250
Derivative liabilities	\$ —	\$ —	\$1,653,810	\$1,653,810

As part of the sale of Unidym in January 2011, Arrowhead received common stock in Wisepower, originally valued at \$2.5 million, \$100,000 of which is due to a third party. Arrowhead has the ability to sell the shares of stock in Wisepower, subject to certain limits on volume of sales over a nine-month period ending in October 2011. During the three months ended March 31, 2011, Arrowhead sold approximately 20% of the original holdings; the remaining shares had a market value of \$2.3 million at March 31, 2011. The recorded value of the stock is adjusted to fair market value based on quotations from the KOSDAQ, a Korean stock exchange, and published foreign exchange rates. Marketable securities are included as part of other current assets in the Company's consolidated balance sheet.

As part of 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 beginning on January 17, 2012 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. A portion of the bond is owed to a third party, as such the company records a derivative asset for entire conversion feature and records a derivative liability for the portion related to the third party. The original fair value of the derivative asset relating to the third party was \$26,310; the fair value at March 31, 2011 was \$25,789. The gain of \$521 is reflected in the change in value of derivatives in the Company's consolidated statement of operations.

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During the six months ended March 31, 2011, the Company recorded a loss from the change in fair value of the derivative asset of \$12,250. The assumptions used in valuing the derivative asset as of March 31, 2011 were as follows:

Risk free interest rate	1.3%
Expected life	2.8 Years
Dividend yield	none
Volatility	72%

The following is a reconciliation of the derivative asset for the six months ended March 31, 2011:

Value at October 1, 2010	\$ —
Receipt of instruments	618,500
Decrease in value	(12,250)
Net settlements	—
Value at March 31, 2011	<u>\$606,250</u>

As part of the equity financing on June 17, 2010, as described in Note 5, Arrowhead issued warrants to acquire up to 3,296,497 shares of common stock (the "Warrants") which contain anti-dilution protection. Under the provisions of the Warrants, if, during the term of the Warrants, the Company issues Common Stock at a price lower than the exercise price of the Warrants, the exercise price of the Warrants would be reduced to the amount equal to the issuance price of the Common Stock. Because the Warrants have this feature, the 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, 2011, the Company recorded a gain from the change in fair value of the derivative liability of \$875,766. The assumptions used in valuing the derivative liability as of March 31, 2011 were as follows:

Risk free interest rate	2.1%
Expected life	4.7 Years
Dividend yield	none
Volatility	100%

In conjunction with the financing of Ablaris during the three months ended March 31, 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 0.6 Arrowhead shares. This ratio declines to 0.4 in the second year, 0.3 in the third year and 0.2 in the fourth year. In the fifth year and beyond the exchange ratio is 0.1. Exchange rights for 675,000 Ablaris shares were sold during the quarter ended March 31, 2011, and remain outstanding at March 31, 2011. 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, 2011, the Company recorded a gain from the change in fair value of the derivative liability of \$5,385. The assumptions used in valuing the derivative liability as of March 31, 2011 were as follows:

Risk free interest rate	2.9%
Expected life	6.8 Years
Dividend yield	none
Volatility	100%

The following is a reconciliation of the derivative liability for the six months ended March 31, 2011:

Value at October 1, 2010	\$2,408,522
Issuance of instruments	126,960
Decrease in value	(881,672)
Net settlements	—
Value at March 31, 2011	<u>\$1,653,810</u>

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The carrying amounts of the Company's other financial instruments, which include accounts receivable and accounts payable, approximate their respective fair values due to the relatively short-term nature of these instruments.

NOTE 9. RELATED PARTY TRANSACTIONS

As a founder of Nanotope, Dr. Anzalone owns 1,395,900 shares of Nanotope, Inc. common stock or approximately 14.2% of Nanotope's outstanding voting securities. Dr. Anzalone does not hold options, warrants or any other rights to acquire securities of Nanotope. Dr. Anzalone has the right to appoint a representative to the board of directors of Nanotope. Dr. Anzalone currently serves on the Nanotope board in a seat reserved for Nanotope's CEO, and another individual holds the seat designated by Dr. Anzalone. Dr. Anzalone has served as President and Chief Executive Officer of Nanotope since its formation and continues to serve in these capacities. Dr. Anzalone has not received any compensation for his work on behalf of Nanotope since joining the Company on December 1, 2007. Dr. Anzalone has also waived his right to any unpaid compensation accrued for work done on behalf of Nanotope before he joined the Company.

As part of the private placement on December 11, 2009 (see Note 5. Stockholder's Equity), Dr. Anzalone, Arrowhead's President and CEO personally invested \$100,000.

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 nanomedicine company developing innovative therapeutic products at the interface of biology and nanoengineering to cure disease and improve human health. Arrowhead addresses its target markets through majority or minority ownership in subsidiaries that are selected based on synergies in their technology, clinical, and business strategies. By focusing on specific applications of nanomedicine, Arrowhead and its subsidiaries leverage shared expertise and resources to develop pioneering therapeutic platforms for large unmet medical needs. Arrowhead is currently focused on the preclinical and clinical development of therapeutics for the treatment of cancer and obesity, as well as the regeneration of wounded or diseased tissue.

Arrowhead's ultimate goal is to increase and realize the value of its investments through:

- A public offering of Subsidiary stock;
- A sale of a Subsidiary to another company;
- License of Subsidiary technology; or
- Generating positive cash flows through operations.

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As of March 31, 2011, Arrowhead had two majority-owned operating subsidiaries, Calando Pharmaceuticals, Inc. and Ablaris Therapeutics, Inc., and minority investments in two early-stage nanotechnology companies, Nanotope, Inc. and Leonardo Biosystems, Inc. Arrowhead plans to add to this portfolio through selective acquisition and formation of new nanomedicine companies, as capital resources allow. On January 18, 2011, Arrowhead sold its interests in Unidym to Wisepower Co., Ltd. as described in Note 3 to Arrowhead's consolidated financial statements.

Arrowhead was originally incorporated in South Dakota in 1989, and was reincorporated in Delaware in 2000. The Company's principal executive offices are located at 225 South Lake Avenue, Suite 300, Pasadena, California 91101, and its telephone number is (626) 304-3400.

Liquidity and Capital Resources

Arrowhead has historically financed its operations through the sale of securities of Arrowhead and its Subsidiaries. Development activities at our Subsidiaries has required significant capital investment since the Company's inception and we expect our current portfolio companies to continue to require cash investment in fiscal 2011 and beyond to continue development.

At March 31, 2011, the Company had approximately \$4.8 million in cash to fund operations. During the first six months of fiscal 2011, the Company's cash position decreased by \$2.1 million, primarily due to operational spending at Arrowhead and Calando. In January 2011, Arrowhead sold its ownership interest in Unidym; therefore the cash burn associated with Unidym ceased in January 2011. As a result of the sale of Unidym, the Company received \$2.5 million in stock of the acquirer, Wisepower Co. Ltd. ("Wisepower") and a \$2.5 million convertible bond from Wisepower, of which approximately \$200,000 is owed to a third party. As of March 31, 2011, the Company sold approximately 20% of the stock for approximately \$600,000. As of March 31, 2011, the remaining shares, net of amount owed to third parties, had a market value of approximately \$2.1 million. The terms of the agreements with Wisepower allow for the sale of the stock over time, subject to certain trading limitations ending in October 2011. Arrowhead intends to dispose its remaining shares as allowed, subject to market conditions. The convertible bond with a face value of \$2.5 million is convertible into Wisepower common stock beginning in January 17, 2012 at a price of \$2.00 per share, and at that point would represent an additional source of liquidity for the company, subject to the then-current market value of the common stock. Finally, the Company has the ability to exercise the redemption feature of certain warrants outstanding which could yield proceeds of approximately \$4.0 million. Based upon the Company's cash on hand, other sources of liquidity, as described above, and based upon the Company's operating plan, the Company's management anticipates that the Company will be able to satisfy the cash requirements of its operations through at least the next twelve months. The Company anticipates that further equity financings, and/or asset sales and license agreements will be necessary to continue to fund operations in the future.

The Company's strategic plan includes focusing on near term revenue opportunities, conserving cash and seeking sources of additional capital. To execute this plan, the Company will seek to accomplish one or more of the following on favorable terms: the out-license of technology, sale of a Subsidiary, sale of non-core assets, scaling down development efforts, funded joint development or partnership arrangements and/or sale of securities. The likelihood that any of these events will occur is uncertain, especially in light of current economic conditions, and the lack of liquidity in the current capital and credit markets. Until such time as one or more of these goals is accomplished, the Company has scaled back operating activities at its Subsidiaries.

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 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 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.

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Revenue associated with research and development funding payments under collaborative agreements is recognized ratably over the relevant periods specified in the agreement, generally the research and development period. 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.

Research and Development Expenses

Research and development expenses include salaries and benefits, trial (including pre-clinical, clinical and other) and production costs, purchased in-process research expenses, contract and other outside service fees, and facilities and overhead costs related to research and development efforts. Research and development expenses also consist of costs incurred for proprietary and collaborative research and development. Research and development costs are expensed as incurred.

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, the asset is written down to its estimated fair value.

Intellectual Property

Intellectual property consists of patents and patent applications internally developed, licensed from universities or other third parties or obtained through acquisition. Patents and patent applications are reviewed for impairment whenever events or circumstances indicate that the carrying amount may not be recoverable, and appropriate adjustments recorded. Purchased or licensed patents are amortized over the remaining life of the patent, generally three to twenty years.

Recent Accounting Pronouncements

See Note 1 to the Consolidated Financial Statements for information concerning the Company's implementation and impact of new accounting guidance.

First Half Review

During the six months ended March 31, 2011, the Company had several significant transactions affecting its results of operations. On December 7, 2010, Unidym entered into three agreements with Samsung Electronics ("Samsung"), pursuant to which it recorded \$4.5 million in revenue and as well as certain expenses necessary to complete the transaction including license fees owed to universities and consulting fees. The Company also recorded an income tax provision due to withholding taxes from the Korean government. On December 14, 2010, the Company entered into an agreement with the University of Texas related to its newly formed subsidiary, Ablaris, whereby the Company was required to make a one-time \$2 million payment to the University of Texas. On January 17, 2011, Arrowhead sold its ownership interests in Unidym to Wisepower Co. Ltd. The Company recorded a gain on disposition of \$3.9 million, which amount may be adjusted based on future potential earn-out payments.

Results of Operations

The Company had consolidated income attributable to Arrowhead of \$1,468,000 for the six months ended March 31, 2011, compared to a consolidated loss attributable to Arrowhead of \$3,399,000 for the six months ended March 31, 2010. For the quarter ended March 31, 2011, the Company had consolidated income attributable to Arrowhead of \$2,905,000 compared to a consolidated loss of 1,854,000 for the comparable prior period. Due to the divestiture of Unidym in January 2011, the results of its operations including revenue and expenses are presented as a part of income/loss from discontinued operations on the Company's Consolidated Statements of Operations. Details of the results of operations are presented below.

Revenue

The Company recorded revenue of \$296,000 during the six months ended March 31, 2011. There was no revenue recorded in the comparable prior period. The revenue in 2011 was primarily related to a qualifying therapeutic discovery grant received by Calando. Revenue associated with Unidym prior to its disposition is presented as a part of discontinued operations.

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 months ended March 31, 2011 and 2010.

[Table of Contents](#)**Salary & Wage Expenses – Three and six months ended March 31, 2011 compared to the three and six months ended March 31, 2010**

The Company employs management, administrative and technical staff at the Arrowhead corporate offices and the Subsidiaries. Salary and wage expense consists of salary, benefits, and non-cash charges related to equity-based compensation from the issuance of stock options. Salary and benefits are allocated to two major categories: general and administrative compensation expense and research and development compensation expense depending on the primary activities of each employee. The following tables provide detail of salary and wage expenses for the three and six months ended March 31, 2011 as compared to the three and six months ended March 31, 2010.

(in thousands)

	Three Months Ended March 31, 2011	% of Expense Category	Three Months Ended March 31, 2010	% of Expense Category	Increase (Decrease)	
					\$	%
G&A - compensation-related	\$ 363	46%	\$ 317	51%	\$ 46	15%
Stock-based compensation	362	46%	247	39%	115	47%
R&D - compensation-related	63	8%	63	10%	—	0%
Total	<u>\$ 788</u>	<u>100%</u>	<u>\$ 627</u>	<u>100%</u>	<u>\$ 161</u>	<u>26%</u>

	Six Months Ended March 31, 2011	% of Expense Category	Six Months Ended March 31, 2010	% of Expense Category	Increase (Decrease)	
					\$	%
G&A - compensation-related	\$ 611	42%	\$ 605	50%	\$ 6	1%
Stock-based compensation	732	50%	505	41%	227	45%
R&D - compensation-related	123	8%	116	9%	7	6%
Total	<u>\$ 1,466</u>	<u>100%</u>	<u>\$ 1,226</u>	<u>100%</u>	<u>\$ 240</u>	<u>20%</u>

During the three months ended March 31, 2011, G&A compensation expense increased \$46,000 primarily due to bonus expense accrual at Arrowhead for funds owed to the former CEO of Unidym as a result of the completion of the Unidym divestiture. R&D compensation expense relates to Calando as costs at Unidym are reflected as a part of discontinued operations; R&D compensation costs at Calando did not change from the comparable prior year quarter. On a year-to-date basis G&A compensation-related costs and R&D compensation related costs were relatively unchanged.

Stock-based compensation is a non-cash charge related to the issuance and vesting of stock options. This expensing of stock-based compensation is based upon the estimated fair value of the awards issued. Stock-based compensation expense increased approximately \$115,000 during the three months ended March 31, 2011, as compared to the three months ended March 31, 2010, primarily due to the issuance of new stock options during fiscal 2010. The number of options outstanding and the option expense will vary from period to period depending on hiring, terminations and awards to new and existing employees.

General & Administrative Expenses – Three and six months ended March 31, 2011 compared to the three and six months ended March 31, 2010

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The following tables provide detail of G&A expenses for the three and six months ended March 31, 2011 as compared to the three and six months ended March 31, 2010.

(in thousands)

	Three Months Ended	% of	Three Months Ended	% of	Increase (Decrease)	
	March 31, 2011	Expense Category	March 31, 2010	Expense Category	\$	%
Professional/outside services	\$ 371	44%	\$ 212	43%	\$ 159	75%
Patent expense	230	28%	51	11%	179	351%
Facilities and related	66	8%	64	13%	2	3%
Travel	23	3%	37	8%	(14)	-38%
Business insurance	54	7%	65	13%	(11)	-17%
Depreciation	7	1%	10	2%	(3)	-30%
Communication and technology	23	3%	23	5%	—	0%
Office expenses	28	3%	17	4%	11	65%
Other	21	3%	6	1%	15	250%
Total	<u>\$ 823</u>	<u>100%</u>	<u>\$ 485</u>	<u>100%</u>	<u>\$ 338</u>	<u>70%</u>

(in thousands)

	Six Months Ended	% of	Six Months Ended	% of	Increase (Decrease)	
	March 31, 2011	Expense Category	March 31, 2010	Expense Category	\$	%
Professional/outside services	\$ 653	46%	\$ 570	54%	\$ 83	15%
Patent expense	370	25%	37	3%	333	NM
Facilities and related	108	7%	139	13%	(31)	-22%
Travel	67	5%	67	6%	—	0%
Business insurance	108	7%	130	12%	(22)	-17%
Depreciation	16	1%	19	2%	(3)	-16%
Communication and technology	50	3%	41	4%	9	22%
Office expenses	40	3%	35	3%	5	14%
Other	42	3%	27	3%	15	56%
Total	<u>\$ 1,454</u>	<u>100%</u>	<u>\$ 1,065</u>	<u>100%</u>	<u>\$ 389</u>	<u>37%</u>

Professional/outside services include legal, accounting, consulting and other outside services retained by the Company and its subsidiaries. All periods include normally occurring legal and accounting expenses related to SEC compliance and other corporate matters. Professional/outside services expense was \$371,000 during the three months ended March 31, 2011, compared to \$212,000 in the comparable prior period. During the six months ended March 31, 2011, Professional/outside services expense was \$653,000 compared to \$570,000 in the comparable prior period. The increase in professional fees was higher investor relations and general consulting costs at Arrowhead, as well as certain one-time costs incurred with the Ablaris financing in January 2011. These were somewhat offset by lower Nasdaq fees as there were no shares issued due to financings in fiscal 2011.

Patent expense was \$230,000 during the three months ended March 31, 2011, compared to \$51,000 in the comparable prior period. During the six months ended March 31, 2011, patent expense was \$370,000 compared to \$37,000 in the comparable prior period. Patent expense for the three months ended March 31, 2011, was primarily related to fees from services from attorneys related to Calando's intellectual property portfolio. The increase is primarily due to increased costs related to foreign patent filings, which were skewed toward the first half of the fiscal year. We expect costs to continue but at a lower level in the second half of the fiscal year. The Company expects to continue to invest in patent protection as the Company extends and maintains protection for its current portfolios and files new patent applications as its product applications are improved. The cost will vary depending on the needs of the Company.

Travel expense was \$23,000 during the three months ended March 31, 2011, compared to \$37,000 in the comparable prior period. During the six months ended March 31, 2011 and 2010, travel expense was \$67,000. Travel expense includes expenses related to travel by Company personnel for operational business meetings at other company locations, and for other business initiatives and collaborations throughout the world with other companies, and for marketing, investor relations, fund raising and public relations purposes. Travel expenses can fluctuate from quarter to quarter and from year to year depending on current projects and activities.

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Business insurance expense was \$54,000 during the three months ended March 31, 2011, compared to \$65,000 in the comparable prior period. During the six months ended March 31, 2011, business insurance expense was \$108,000 compared to \$130,000 in the comparable prior period. The company experienced favorable rate decreases in its Directors and Officers insurance coverage. Calando's insurance cost for clinical trials remained relatively stable, however, this expense can fluctuate as a result of changes in the market and the status of clinical trials.

Communication and technology expense was \$23,000 during the three months ended March 31, 2011 and 2010. During the six months ended March 31, 2011, communications and technology expense was \$50,000 compared to \$41,000 in the comparable prior period. The company experienced a modest increase in information technology consulting fees due to certain equipment upgrades during the year.

Research and Development Expenses – Three and six months ended March 31, 2011 compared to the three and six months ended March 31, 2010

R&D expenses are primarily related to activities within Arrowhead's Subsidiaries. The following tables provide detail of research and development expenses for the three and six months ended March 31, 2011, as compared to the three and six months ended March 31, 2010.

(in thousands)

	Three Months Ended	% of	Three Months Ended	% of	Increase (Decrease)	
	March 31, 2011	Expense Category	March 31, 2010	Expense Category	\$	%
Outside labs & contract services	\$ 99	71%	\$ 67	30%	\$ 32	48%
Consulting	27	19%	111	49%	\$ (84)	-76%
License, royalty & milestones	13	9%	2	1%	11	NM
Other research expenses	2	1%	44	20%	(42)	-95%
Total	\$ 141	100%	\$ 224	100%	\$ (83)	-37%

	Six Months Ended	% of	Six Months Ended	% of	Increase (Decrease)	
	March 31, 2011	Expense Category	March 31, 2010	Expense Category	\$	%
Outside labs & contract services	\$ 188	8%	\$ 116	38%	\$ 72	62%
Consulting	197	8%	131	43%	66	50%
License, royalty & milestones	2,013	84%	17	6%	1,996	NM
Other research expenses	5	0%	40	13%	(35)	NM
Total	\$ 2,403	100%	\$ 304	100%	\$ 2,099	690%

NM = Not Meaningful

Outside labs and contract services expense was \$99,000 during the three months ended March 31, 2011, compared to \$67,000 in the comparable prior period. During the six months ended March 31, 2011, outside labs and contract services expense was \$188,000 compared to \$116,000 in the comparable prior period. The decrease during the first half of fiscal 2011 was due to reduced spending at Calando as there was less outside lab services required.

Consulting expense was \$27,000 during the three months ended March 31, 2011, compared to \$111,000 in the comparable prior period. During the six months ended March 31, 2011, consulting expense was \$197,000 compared to \$131,000 in the comparable prior period. The primary reason for the decrease is due to nonrepeat of costs from a study at UCLA related to the Calando dose escalation clinical trial. The increase on a year-to-date basis is primarily driven by technical consulting costs associated with the company's new subsidiary, Ablaris Therapeutics, Inc.

Licensing fees, royalty and milestones expense was \$13,000 during the three months ended March 31, 2011, compared to \$2,000 in the comparable prior period. During the six months ended March 31, 2011, licensing fees, royalty and milestones expense was \$2.0 million compared to \$17,000 in the comparable prior period. Licensing fees, royalty and milestones expenses during the six months ended March 31, 2011 were due to \$2 million in licensing fees owed to the University of Texas M.D. Anderson Cancer Center related to a Patent and Technology License Agreement entered into in December 2010.

Other research expense was \$2,000 during the three months ended March 31, 2011, compared to \$44,000 in the comparable prior period. During the six months ended March 31, 2011, other research expense was \$5,000 compared to \$40,000 in the comparable prior period. The prior year costs included certain license costs from Northwestern University which were not repeated in the current year.

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Other income (expense) – Three and six months ended March 31, 2011 compared to the three and six months ended March 31, 2010

Other income was \$724,000 during the three months ended March 31, 2011, compared to other expense of \$58,000 in the comparable prior period. During the six months ended March 31, 2011, other income was \$1.3 million compared to other expense of \$118,000. The primary components of the other income in the three and six months ended March 31, 2011 were as a noncash gains from the change in the value of derivatives, and realized and unrealized gains from the change in value of marketable securities. During the three months ended March 31, 2011, the gain from the change in value of a derivative liability was \$404,152 and the realized and unrealized gains from marketable securities were \$359,920. See note 8 in the Consolidated Financial Statements (Unaudited) for further discussion.

The other component of other income (expense) is the Company's equity in losses of Nanotope, Inc., which reflected our share of its losses for the period. These losses have been fairly consistent, but may fluctuate depending on the operations and financial results of Nanotope.

Off-Balance Sheet Arrangements

We do not have and have not had 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) under 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

We are a development stage company and we have limited historical operations. We urge you to consider our likelihood of success and prospects in light of the risks, expenses and difficulties frequently encountered by entities at similar stages of development.

The following is a summary of certain risks we face. They are not the only risks we face. Additional risks of which we are not presently aware or that we currently believe are immaterial may also harm our business and results of operations. The trading price of our common stock could decline due to the occurrence of any of these risks, and investors could lose all or part of their investment. In assessing these risks, investors should also refer to the other information contained or incorporated by reference in our other filings with the Securities and Exchange Commission.

Risks Related to Our Financial Condition

We have limited cash resources.

Our plan of operations is to provide substantial amounts of development funding and financial support to our subsidiaries over an extended period of time. The Company adopted a cash conservation strategy that reduced corporate expenses and scaled back our financial support for our major subsidiaries. This has influenced Calando's decision to curtail internal R&D efforts for its drug delivery platforms and clinical candidates and seek partners for future development of its drug candidates. Management continues to operate under a plan to conserve cash resources while selectively investing in near-term opportunities. The Company's management anticipates that the Company will be able to satisfy the cash requirements of its operations through at least the next twelve months with current cash resources.

However, we may need to obtain additional capital to further our development efforts, and we intend to seek additional capital by out-licensing technology, selling one or more of our subsidiaries, securing funded partnerships, conducting one or more private placements of equity securities of the Company or our subsidiaries, selling additional securities in a registered public offering, or through a combination of one or more of such financing alternatives. However, there can be no assurance that we will be successful in any of these endeavors or, if we are successful, that such transactions will be accomplished on favorable terms. If we are unable to obtain additional capital, we will implement additional cash saving measures, which could materially harm our business and our ability to achieve positive cash flow in the future, including delaying or reducing implementation of certain aspects of our plan of operations. Even if we are successful in obtaining additional capital, because we and each subsidiary are separate entities, it could be difficult or impossible to allocate funds in a way that meets the needs of all entities.

The current financial market conditions may exacerbate certain risks affecting our business.

Neither Arrowhead nor its subsidiaries generate substantial revenue, and our operations and research and development activities have been primarily funded through the sale of Company securities and securities of our subsidiaries. Current market conditions may impair our ability to raise the capital we need. If we are unable to secure additional cash resources from the sale of securities or other sources, it could become necessary to further slow, interrupt or close down development efforts. In addition, we may have to make additional reductions in expenses at the Company, which could impair our ability to manage our business and our subsidiaries. Even if investment capital is available to us, the terms may be onerous. If investment capital is needed and available to Calando or our other portfolio companies and the Company does not have the funds to make a pro rata investment, our ownership interest could be diluted. The sale of additional Company stock to fund operations could result in significant dilution to stockholders.

The strategy for eventual monetization of our subsidiaries will likely depend on our ability to exit our ownership position in each subsidiary in an orderly manner. Exit opportunities could include an initial public offering ("IPO") for the subsidiary or acquisition of the subsidiary by another company. During the recent economic recession, companies have been adopting conservative acquisition strategies and, even if there is interest, we may not be able to sell our subsidiaries on terms that are attractive to us. These factors could reduce the realizable return on our investment if we are able to sell a subsidiary. Additionally, the market for IPOs continues to be very limited, which limits public exit opportunities for our subsidiaries.

We may not be able to maintain our listing on the NASDAQ Capital Market.

Our Common Stock trades on the NASDAQ Capital Market, which has certain compliance requirements for continued listing of common stock. In the past, we have been subject to delisting procedures due to a drop in the price of our Common Stock. Our stock has continued to trade below \$1.00, if this continues, we may again be subject to delisting procedures, as described more fully below. We must also meet additional continued listing requirements contained in NASDAQ Marketplace Rule 5550(b), which requires that we have (1) a minimum of \$2,500,000 in stockholders' equity, (2) \$35,000,000 market value of listed securities held by non-affiliates or (3) \$500,000 of net income from continuing operations for the most recently completed fiscal year (or two of the three most recently completed fiscal years). As of May 2, 2011, based on our closing price as of that day, the market value of our securities held by non-affiliates was approximately \$41,000,000.

As of the close of business on December 8, 2010, our Common Stock had a closing bid price of \$0.90 per share, and had a bid price of less than \$1.00 for 30 consecutive days. Accordingly, on December 8, 2010, we received a deficiency letter from the NASDAQ Stock Market indicating that, based on the Company's closing bid price for the last 30 consecutive business days, the Company does not comply with the minimum bid price of \$1.00 per as set forth in NASDAQ Marketplace Rule 5550(a)(2).

In accordance with NASDAQ Marketplace Rule 5810(c)(3)(A), the Company has a grace period of 180 calendar days, or until June 6, 2011 to regain compliance with the minimum closing bid price requirement for continued listing. In order to regain compliance, the minimum closing price per share of the Company's common stock must be at least \$1.00 for a minimum of ten consecutive business days. In the event the Company does not regain compliance by June 6, 2011, the Company may be afforded an additional 180 day compliance period, provided it demonstrates that it meets all other applicable standards for initial listing on the NASDAQ Capital Market (except the bid price requirement). If the Company fails to regain compliance after the second grace period, the Company's stock will be subject to delisting by NASDAQ.

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Delisting could reduce the ability of our shareholders to purchase or sell shares as quickly and as easily as they have done historically. For instance, failure to obtain listing on another market or exchange may make it more difficult for traders to sell our securities. Broker-dealers may be less willing or able to sell or make a market in our Common Stock. Not maintaining our NASDAQ Capital Market listing may (among other effects):

- Result in a decrease in the trading price of our Common Stock;
- Lessen interest by institutions and individuals in investing in our Common Stock;
- Make it more difficult to obtain analyst coverage; and
- Make it more difficult for us to raise capital in the future.

We have debt on our consolidated balance sheet, which could have consequences if we were unable to repay the principal or interest due.

Calando has a \$500,000 unsecured convertible promissory note outstanding. The note bears 10% interest accrued annually, and matures in November 2013. The note is payable at two times face value in certain events, including, among other things, the license of Calando's siRNA delivery system, and upon maturity. If Calando is unable to meet its obligations to the bearer of the note, Arrowhead may also not be in a position to lend Calando sufficient cash to pay such demand note. Unless other sources of financing become available, this could result in Calando's insolvency.

Our subsidiaries have entered into technology license agreements with third parties that require us to satisfy obligations to keep them effective and, if these agreements are terminated, our technology and our business would be seriously and adversely affected.

Through our subsidiaries, we have entered into exclusive, long-term license agreements with California Institute of Technology, Alnylam Pharmaceuticals, Inc. and other entities to incorporate their proprietary technologies into our proposed products. These license agreements require us to pay royalties and satisfy other conditions, including conditions related to the commercialization of the licensed technology. We cannot give any assurance that we will successfully incorporate these technologies into marketable products or, if we do, whether sales will be sufficient to recover the amounts that we are obligated to pay to the licensors. Failure by us to satisfy our obligations under these agreements may result in the modification of the terms of the licenses, such as by rendering them non-exclusive, or may give our licensors the right to terminate their respective agreement with us, which would limit our ability to implement our current business plan and harm our business and financial condition.

Risks Related to Our Business Model and Company

We are a development stage company and our success is subject to the substantial risks inherent in the establishment of new business ventures.

The implementation of our business strategy is still in the development stage. We currently own interests in several biotech companies. Our business and operations should be considered to be in the development stage and subject to all of the risks inherent in the establishment of a new business venture. Accordingly, our intended business and operations may not prove to be successful in the near future, if at all. Any future success that we might enjoy will depend upon many factors, several of which may be beyond our control, or which cannot be predicted at this time, and which could have a material adverse effect upon our financial condition, business prospects and operations, and the value of an investment in the Company.

Calando may be unable to find additional partners to license its technologies.

As part of our recent cash conservation strategy that scaled back financial support for Calando, Calando closed its laboratory facilities, eliminated its technical employees and has shifted its focus to licensing its technologies to partners. Currently, Calando has one licensing partner, but there can be no assurance that Calando will be able to find additional partners to license its technologies upon terms favorable to Calando.

We may lose a considerable amount of control over our intellectual property and may not receive anticipated revenues in strategic transactions involving our subsidiaries, particularly where the consideration is contingent on the achievement of development or sales milestones after closing.

The business model of our subsidiaries has historically been to develop new nanotechnologies and to exploit the intellectual property created through the research and development process to develop commercially successful products. Calando has licensed a portion of its technology to Cerulean Pharma, Inc. and intends to pursue further licensing arrangements with other companies. A

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significant portion of the potential value from these licenses is tied to the achievement of the development and sales milestones, which we cannot control. Similarly, the majority of the consideration, up to \$140 million, potentially payable by Wisepower in connection with our sale of Unidym is tied to the achievement of commercialization milestones, over which we cannot exercise control. Although Wisepower and Cerulean are required to use certain minimum efforts to achieve the post-closing milestones, we cannot control whether they actually achieve these milestones. If the acquirers fail to achieve performance milestones, we may not receive a significant portion of the total value of any sale, license or other strategic transaction.

There are substantial risks inherent in attempting to commercialize new technological applications, and, as a result, we may not be able to successfully develop nanotechnology for commercial use.

The Company finances research and development of nanotechnology, which is a new and unproven field. Our scientists and engineers are working on developing technology in various stages. However, such technology's commercial feasibility and acceptance is unknown. Scientific research and development requires significant amounts of capital and takes a long time to reach commercial viability, if at all. To date, our research and development projects have not produced commercially viable applications, and may never do so. During the research and development process, we may experience technological barriers that we may be unable to overcome. Because of these uncertainties, it is possible that none of our potential applications will be successfully developed. If we are unable to successfully develop nanotechnology applications for commercial use, we will be unable to generate revenue or build a sustainable or profitable business.

Because we have not generated significant revenues to cover our operating expenses, we are dependent on raising additional capital from investors or lenders.

To date, we have only generated a small amount of revenue as a result of our current plan of operations. Given our strategy of financing new and unproven technology research, there is no assurance we would ever generate significant revenues. Our revenue-producing opportunities depend on liquidity events within our subsidiaries, such as a sale of the subsidiary, licensing transaction or initial public offering. We cannot be certain that we will be able to create a liquidity event for any of our subsidiaries and, even if we are able to, we cannot be certain of the timing or the potential proceeds to Arrowhead as a stockholder. Accordingly, our revenue prospects are uncertain and we must plan to finance our operations through the sales of equity securities or debt financing. If we are unable to continue raising operating capital from these sources, we may be forced to curtail or cease our operations.

We will need to achieve commercial acceptance of our applications to generate revenues and achieve profitability.

Even if our research and development yields technologically feasible applications, we may not successfully develop commercial products, and even if we do, we may not do so on a timely basis. Even if our research efforts are technologically successful, it could take several years before this technology will be commercially viable. During this period, superior competitive technologies may be introduced or customer needs may change, which could diminish or extinguish the commercial uses for our applications. The degree to which potential consumers will adopt our products is uncertain. We cannot predict when significant commercial market acceptance for our products will develop, if at all, and we cannot reliably estimate the projected size of any such potential market. If markets fail to accept our products, we may not be able to generate revenues from the commercial application of our technologies. Our revenue growth and achievement of profitability will depend substantially on our ability to introduce new technological applications to manufacturers for products accepted by customers. If we are unable to cost-effectively achieve acceptance of our technology among the medical establishment and patients, or if the associated products do not achieve wide market acceptance, our business will be materially and adversely affected.

We will need to establish additional relationships with strategic and development partners to fully develop and market our products.

We do not possess all of the resources necessary to develop and commercialize products that may result from our technologies on a mass scale. Unless we expand our product development capacity and enhance our internal marketing capability, we will need to make appropriate arrangements with strategic partners to develop and commercialize current and future products. If we do not find appropriate partners, or if our existing arrangements or future agreements are not successful, our ability to develop and commercialize products could be adversely affected. Even if we are able to find collaborative partners, the overall success of the development and commercialization of product candidates in those programs will depend largely on the efforts of other parties and is beyond our control. In addition, in the event we pursue our commercialization strategy through collaboration, there are a variety of technical, business and legal risks, including:

- A development partner would likely gain access to our proprietary information, potentially enabling the partner to develop products without us or design around our intellectual property;
- We may not be able to control the amount and timing of resources that our collaborators may be willing or able to devote to the development or commercialization of our product candidates or to their marketing and distribution; and

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- Disputes may arise between us and our collaborators that result in the delay or termination of the research, development or commercialization of our product candidates or that result in costly litigation or arbitration that diverts our management's resources.

The occurrence of any of the above events or other related events not foreseen by us could impair our ability to generate revenues and harm our business and financial condition.

We need to retain a controlling interest, by ownership, contract or otherwise, in Calando in order to avoid potentially being deemed an investment company under the Investment Company Act of 1940.

Companies that have more than 100 U.S. stockholders or are publicly traded in the U.S. or are, or hold themselves out as being, engaged primarily in the business of investing, reinvesting or trading in securities are subject to regulation under the Investment Company Act of 1940. Unless a substantial part of our assets consists of, and a substantial part of our income is derived from, interests in majority-owned subsidiaries and companies that we primarily control, whether by contract or otherwise, we may be required to register and become subject to regulation under the Investment Company Act. Because Investment Company Act regulation is, for the most part, inconsistent with our strategy of actively managing and operating our portfolio companies, a requirement to operate our business as a registered investment company would restrict our operations and require additional resources for compliance.

If we are deemed to be, and are required to register as, an investment company, we will be forced to comply with substantive requirements under the Investment Company Act, including:

- Limitations on our ability to borrow;
- Limitations on our capital structure;
- Restrictions on acquisitions of interests in associated companies;
- Prohibitions on transactions with our affiliates;
- Restrictions on specific investments; and
- Compliance with reporting, record keeping, voting, proxy disclosure and other rules and regulations.

In order to avoid regulation under the Investment Company Act, we may choose to make additional pro rata investments in Calando and Ablaris to maintain a controlling interest.

We may not be able to effectively secure first-tier research and development projects when competing against other ventures.

Our business plan requires that we identify and successfully acquire promising technologies. However, we compete with a substantial number of other companies that fund early-stage, scientific research at universities to secure rights to promising technologies. In addition, many venture capital firms and other institutional investors invest in companies seeking to commercialize various types of emerging technologies. Many of these companies have greater financial, scientific and commercial resources than us. Therefore, we may not be able to secure the opportunity to finance first-tier research and commercialization projects. Furthermore, should any commercial undertaking by us prove to be successful, there can be no assurance competitors with greater financial resources will not offer competitive products and/or technologies.

We rely on outside sources for various components and processes for our products.

We rely on third parties for various components and processes for our products. While we try to have at least two sources for each component and process, we may not be able to achieve multiple sourcing because there may be no acceptable second source, other companies may choose not to work with us, or the component or process sought may be so new that a second source does not exist, or does not exist on acceptable terms. In addition, due to the continued tightening of global credit markets, there may be a disruption or delay in the performance of our third-party contractors, suppliers or collaborators. If such third parties are unable to satisfy their commitments to us, our business would be adversely affected. Therefore, it is possible that our business plans will have to be slowed down or stopped completely at times due to our inability to obtain required raw materials, components and outsourced processes at an acceptable cost, if at all, or to get a timely response from vendors.

We must overcome the many obstacles associated with integrating and operating varying business ventures to succeed.

Our model to integrate and oversee the strategic direction of various subsidiaries and research and development projects presents many risks, including:

- The difficulty of integrating operations and personnel; and
- The diversion of our management's attention as a result of evaluating, negotiating and integrating acquisitions or new business ventures.

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If we are unable to timely and efficiently design and integrate administrative and operational support for our subsidiaries, we may be unable to manage projects effectively, which could adversely affect our ability to meet our business objectives and the value of an investment in the Company could decline.

In addition, consummating acquisitions and taking advantage of strategic relationships could adversely impact our cash position, and dilute stockholder interests, for many reasons, including:

- Changes to our income to reflect the amortization of acquired intangible assets, including goodwill;
- Interest costs and debt service requirements for any debt incurred to fund our growth strategy; and
- Any issuance of securities to fund our operations or growth, which dilutes or lessens the rights of current stockholders.

Our success depends on the attraction and retention of senior management and scientists with relevant expertise.

Our future success will depend to a significant extent on the continued services of our key employees, including Dr. Anzalone, our CEO. We do not maintain key man life insurance for any of our executives. Our ability to execute our strategy also will depend on our ability to continue to attract and retain qualified scientists and additional managerial personnel. If we are unable to find, hire and retain qualified individuals, we could have difficulty implementing our business plan in a timely manner, or at all. We may need to terminate additional employees, including senior management and technical employees, or such employees may seek other employment which may result in the loss of valuable know-how and that development efforts could be negatively affected.

Members of our senior management team and Board may have a conflict of interest in also serving as officers and/or directors of our subsidiaries.

While we expect that our officers and directors who also serve as officers and/or directors of our subsidiaries will comply with their fiduciary duties owed to our stockholders, they may have conflicting fiduciary obligations to our stockholders and the minority stockholders of our subsidiaries. Specifically, Dr. Anzalone, our CEO and President, is the founder, CEO and a board member of each of Nanotope, a regenerative medicine company in which the Company owns a 23% interest, and Leonardo, a drug delivery company in which the Company owns a 5% interest. Dr. Anzalone owns a noncontrolling interest in the stock of each of Nanotope and Leonardo. To the extent that any of our directors choose to recuse themselves from particular Board actions to avoid a conflict of interest, the other members of our Board of Directors will have a greater influence on such decisions.

Our efforts pertaining to the pharmaceutical industry are subject to additional risks.

Our subsidiaries, Calando and Ablaris, as well as minority investments Nanotope and Leonardo, are focused on technology related to new and improved pharmaceutical candidates. Drug development is time consuming, expensive and risky. Even product candidates that appear promising in the early phases of development, such as in early animal and human clinical trials, often fail to reach the market for a number of reasons, such as:

- Clinical trial results may be unacceptable, even though preclinical trial results were promising;
- Inefficacy and/or harmful side effects in humans or animals;
- The necessary regulatory bodies, such as the U.S. Food and Drug Administration, may not approve our potential product for the intended use; and
- Manufacturing and distribution may be uneconomical.

Clinical trial results are frequently susceptible to varying interpretations by scientists, medical personnel, regulatory personnel, statisticians and others, which often delays, limits, or prevents further clinical development or regulatory approvals of potential products. Additionally, clinical trials can take years to complete site selection and the enrollment of patients. If the subsidiaries' technology is not cost effective or if the associated drug products do not achieve wide market acceptance, the value of a subsidiary would be materially and adversely affected.

Any drugs developed by our subsidiaries may become subject to unfavorable pricing regulations, third-party reimbursement practices or healthcare reform initiatives, thereby harming our business.

Increasing expenditures for healthcare have been the subject of considerable public attention in the U.S. Both private and government entities are seeking ways to reduce or contain healthcare costs. Numerous proposals that would affect changes in the U.S. healthcare system have been introduced or proposed in Congress and in some state legislatures, including reductions in the cost of prescription products and changes in the levels at which consumers and healthcare providers are reimbursed for purchases of pharmaceutical products.

The ability of Calando and our minority investments, Nanotope and Leonardo, to market products successfully (either on their own or in partnership with other companies) will depend in part on the extent to which third-party payers are willing to reimburse

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patients for the costs of their products and related treatments. These third-party payers include government authorities, private health insurers and other organizations, such as health maintenance organizations. Third party payers are increasingly challenging the prices charged for medical products and services. In addition, the trend toward managed healthcare and government insurance programs could result in lower prices and reduced demand for the products of these companies. Cost containment measures instituted by healthcare providers and any general healthcare reform could affect their ability to sell products and may have a material adverse effect on them, thereby diminishing the value of the Company's interest in these subsidiaries or any anticipated milestone or royalty payments. We cannot predict the effect of future legislation or regulation concerning the healthcare industry and third party coverage and reimbursement on our business.

There may be a difference in the investment valuations that we used when making initial and subsequent investments in our subsidiaries and minority investments and actual market values.

Our investments in our subsidiaries and noncontrolling interests were the result of negotiation with subsidiary management and equity holders, and the investment valuations may not always have been independently verified. Traditional methods used by independent valuation analysts include a discounted cash flow analysis and a comparable company analysis. We have not generated a positive cash flow to date and do not expect to generate significant cash flow in the near future. Additionally, we believe that few comparable public companies exist to provide meaningful valuation comparisons. Accordingly, we have always not sought independent valuation analysis in connection with our investments and may have invested in our various holdings at higher or lower valuations than an independent source would have recommended. There may be no correlation between the investment valuations that we used over the years for our investments and the actual market values. If we should eventually sell all or a part of any of our consolidated business or that of a subsidiary, the ultimate sale price may be for a value substantially different than previously determined by us, which could materially and adversely impair the value of our Common Stock.

Risks Related to Our Intellectual Property

Our ability to protect our patents and other proprietary rights is uncertain, exposing us to the possible loss of competitive advantage.

Our subsidiaries have licensed rights to pending patents and have filed and will continue to file patent applications. The researchers sponsored by us may also file patent applications that we choose to license. If a particular patent is not granted, the value of the invention described in the patent would be diminished. Further, even if these patents are granted, they may be difficult to enforce. Even if successful, efforts to enforce our patent rights could be expensive, distracting for management, cause our patents to be invalidated, and frustrate commercialization of products. Additionally, even if patents are issued and are enforceable, others may independently develop similar, superior or parallel technologies to any technology developed by us, or our technology may prove to infringe upon patents or rights owned by others. Thus, the patents held by or licensed to us may not afford us any meaningful competitive advantage. If we are unable to derive value from our licensed or owned intellectual property, the value of your investment may decline.

Our ability to develop and commercialize products will depend on our ability to enforce our intellectual property rights and operate without infringing the proprietary rights of third parties.

Our ability and the ability of our subsidiaries to develop and commercialize products based on their respective patent portfolios, will depend, in part, on our ability and the ability of our subsidiaries to enforce those patents and operate without infringing the proprietary rights of third parties. We cannot be certain that any patents that may issue from patent applications owned or licensed by us or any of our subsidiaries will provide sufficient protection to conduct our respective businesses as presently conducted or as proposed to be conducted, or that we or our subsidiaries will remain free from infringement claims by third parties.

We may be subject to patent infringement claims, which could result in substantial costs and liability and prevent us from commercializing our potential products.

Because the nanotechnology intellectual property landscape is rapidly evolving and interdisciplinary, it is difficult to conclusively assess our freedom to operate without infringing on third party rights. However, we are currently aware of certain patent rights held by third parties that, if found to be valid and enforceable, could be alleged to render one or more of our business lines infringing. If a claim should be brought and is successful, we may be required to pay substantial damages, be forced to abandon any affected business lines and/or seek a license from the patent holder. In addition, any patent infringement claims brought against us or our subsidiaries, whether or not successful, may cause us to incur significant expenses and divert the attention of our management and key personnel from other business concerns. These could negatively affect our results of operations and prospects. We cannot be certain that patents owned or licensed by us or our subsidiaries will not be challenged by others.

In addition, if our potential products infringe the intellectual property rights of third parties, these third parties may assert infringement claims against our customers, and we may be required to indemnify our customers for any damages they suffer as a

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result of these claims. The claims may require us to initiate or defend protracted and costly litigation on behalf of customers, regardless of the merits of these claims. If any of these claims succeed, we may be forced to pay damages on behalf of our customers or may be required to obtain licenses for the products they use. If we cannot obtain all necessary licenses on commercially reasonable terms, we may be unable to continue selling such products.

The technology licensed by our subsidiaries from various third parties may be subject to government rights and retained rights of the originating research institutions.

We license technology from Caltech, and other universities and companies. Our licensors may have obligations to government agencies or universities. Under their agreements, a government agency or university may obtain certain rights over the technology that we have developed and licensed, including the right to require that a compulsory license be granted to one or more third parties selected by the government agency.

In addition, our collaborators often retain certain rights under their agreements with us, including the right to use the underlying technology for noncommercial academic and research use, to publish general scientific findings from research related to the technology, and to make customary scientific and scholarly disclosures of information relating to the technology. It is difficult to monitor whether our collaborators limit their use of the technology to these uses, and we could incur substantial expenses to enforce our rights to our licensed technology in the event of misuse.

Risks Related to Regulation of Our Products

Our corporate compliance program cannot guarantee that we are in compliance with all applicable federal and state regulations.

Our operations, including our research and development and our commercialization efforts, such as clinical trials, manufacturing and distribution, are subject to extensive federal and state regulation. While we have developed and instituted a corporate compliance program, we cannot be assured that the Company or our employees are, or will be in compliance with all potentially applicable federal and state regulations or laws. If we fail to comply with any of these regulations or laws, a range of actions could result, including, but not limited to, the termination of clinical trials, the failure to approve a commercialized product, significant fines, sanctions, or litigation, any of which could harm our business and financial condition.

If export controls affecting our products are expanded, our business will be adversely affected.

The federal government regulates the sale and shipment of numerous technologies by U.S. companies to foreign countries. Our subsidiaries may develop products that might be useful for military and antiterrorism activities. Accordingly, federal government export regulations could restrict sales of these products in other countries. If the federal government places burdensome export controls on our technology or products, our business would be materially and adversely affected. If the federal government determines that we have not complied with the applicable export regulations, we may face penalties in the form of fines or other punishment.

Risks Related to our Stock

Stockholder equity interest may be substantially diluted in any additional financing.

Our certificate of incorporation authorizes the issuance of 145,000,000 shares of Common Stock and 5,000,000 shares of Preferred Stock, on such terms and at such prices as our Board of Directors may determine. As of March 31, 2011, 71,806,694 shares of Common Stock and no shares of Preferred Stock were issued and outstanding. As of March 31, 2011, 7,467,188 shares were reserved for issuance upon exercise of outstanding options. As of March 31, 2011, there were warrants outstanding to purchase 25,586,038 shares of Common Stock. The issuance of additional securities in financing transactions by us or through the exercise of options or warrants will dilute the equity interests of our existing stockholders, perhaps substantially, and might result in dilution in the tangible net book value of a share of our Common Stock, depending upon the price and other terms on which the additional shares are issued.

Our Common Stock price has fluctuated significantly over the last several years and may continue to do so in the future, without regard to our results of operations and prospects.

Because we are a development stage company, there are few objective metrics by which our progress may be measured. Consequently, we expect that the market price of our Common Stock will likely continue to fluctuate significantly. We do not expect to generate substantial revenue from the license or sale of our nanotechnology for several years, if at all. In the absence of product revenue as a measure of our operating performance, we anticipate that investors and market analysts will assess our performance by considering factors such as:

- Announcements of developments related to our business;
- Developments in our strategic relationships with scientists within the nanotechnology field;

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- Our ability to enter into or extend investigation phase, development phase, commercialization phase and other agreements with new and/or existing partners;
- Announcements regarding the status of any or all of our collaborations or products;
- Market perception and/or investor sentiment regarding nanotechnology as the next technological wave;
- Announcements regarding developments in the nanotechnology field in general;
- The issuance of competitive patents or disallowance or loss of our patent rights; and
- Quarterly variations in our operating results.

We will not have control over many of these factors but expect that they may influence our stock price. As a result, our stock price may be volatile and any extreme fluctuations in the market price of our Common Stock could result in the loss of all or part of your investment.

The market for purchases and sales of our Common Stock may be very limited, and the sale of a limited number of shares could cause the price to fall sharply.

Although our Common Stock is listed for trading on the NASDAQ Capital Market, historically our securities have been relatively thinly traded. Investor trading patterns could serve to exacerbate the volatility of the price of the stock. For example, mandatory sales of our Common Stock by institutional holders could be triggered if an investment in our Common Stock no longer satisfies their investment standards and guidelines. Accordingly, it may be difficult to sell shares of Common Stock quickly without significantly depressing the value of the stock. Unless we are successful in developing continued investor interest in our stock, sales of our stock could continue to result in major fluctuations in the price of the stock.

If securities or industry analysts do not publish research reports about our business or if they make adverse recommendations regarding an investment in our stock, our stock price and trading volume may decline.

The trading market for our Common Stock will be influenced by the research and reports that industry or securities analysts publish about our business. We do not currently have and may never obtain research coverage by industry or securities analysts. Investors have many investment opportunities and may limit their investments to companies that receive coverage from analysts. If no industry or securities analysts commence coverage of the Company, the trading price of our stock could be negatively impacted. In the event we obtain industry or security analyst coverage, if one or more of the analysts downgrade our stock or comment negatively on our prospects, our stock price would likely decline. If one or more of these analysts cease to cover our industry or us or fails to publish reports about the Company regularly, our Common Stock could lose visibility in the financial markets, which could also cause our stock price or trading volume to decline.

The market price of our Common Stock may be adversely affected by the sale of shares by our management or founding stockholders.

Sales of our Common Stock by our officers, directors and founding stockholders could adversely and unpredictably affect the price of those securities. Additionally, the price of our Common Stock could be affected even by the potential for sales by these persons. We cannot predict the effect that any future sales of our Common Stock, or the potential for those sales, will have on our share price. Furthermore, due to relatively low trading volume of our stock, should one or more large stockholders seek to sell a significant portion of its stock in a short period of time, the price of our stock may decline.

We may be the target of securities class action litigation due to future stock price volatility.

In the past, when the market price of a stock has been volatile, holders of that stock have often initiated securities class action litigation against the company that issued the stock. If any of our stockholders brought a lawsuit against us, we could incur substantial costs defending the lawsuit. The lawsuit could also divert the time and attention of our management.

We do not intend to declare cash dividends on our Common Stock.

We will not distribute cash to our stockholders unless and until we can develop sufficient funds from operations to meet our ongoing needs and implement our business plan. The time frame for that is inherently unpredictable, and you should not plan on it occurring in the near future, if at all.

Our Board of Directors has the authority to issue shares of "blank check" preferred stock, which may make an acquisition of the Company by another company more difficult.

We have adopted and may in the future adopt certain measures that may have the effect of delaying, deferring or preventing a takeover or other change in control of the Company that a holder of our Common Stock might consider in its best interest.

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Specifically, our Board of Directors, without further action by our stockholders, currently has the authority to issue up to 5,000,000 shares of preferred stock and to fix the rights (including voting rights), preferences and privileges of these shares (“blank check” preferred). Such preferred stock may have rights, including economic rights, senior to our Common Stock.

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

All information under this Item has been previously reported on our Current Reports on Form 8-K.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. (REMOVED AND RESERVED)

ITEM 5. OTHER INFORMATION

None.

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ITEM 6. EXHIBITS

<u>Exhibit Number</u>	<u>Document Description</u>
10.1	Stock Purchase Agreement – Calando Pharmaceuticals, Inc.*
10.2	Stock Purchase Agreement – Ablaris Therapeutics, Inc.*
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*

* Filed herewith

SIGNATURE

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Issuer has caused this Quarterly Report on Form 10-Q to be signed on its behalf by the undersigned, thereunto duly authorized.

Dated: May 12, 2011

ARROWHEAD RESEARCH CORPORATION

By: /s/ Kenneth A. Myszkowski

Kenneth A. Myszkowski
Chief Financial Officer

STOCK PURCHASE AGREEMENT

This Stock Purchase Agreement (this "**Agreement**") is made as of the 10th day of January, 2011 by and among Calando Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), Arrowhead Research Corporation, a Delaware corporation ("**Arrowhead**") and the investors listed on Exhibit A attached hereto (including Arrowhead, each, an "**Investor**" and, together, the "**Investors**").

WHEREAS, the Company has issued to Arrowhead a series of promissory notes issued prior to November 2008, with the total outstanding principal and accrued interest owed as of October 31, 2010 being \$5,946,840 (the "**Prior Indebtedness**"), which the Company and Arrowhead desire to convert to a newly issued Series C Preferred Stock, par value \$0.0001 per share, of the Company (the "**Series C Stock**") at a purchase price of \$0.155 per share;

WHEREAS, the Company has issued to Arrowhead a series of promissory notes issued after June 2009 and the Company is additionally indebted to Arrowhead through a series of intercompany loans carried on the books of the Company, with the total outstanding principal and accrued interest owed as of October 31, 2010 being \$2,152,787, (the "**Current Indebtedness**" and together with the Prior Indebtedness, the "**Indebtedness**"), which the Company and Arrowhead desire to convert to a newly issued Series B Preferred Stock, \$0.0001 par value per share, of the Company (the "**Conversion Series B Stock**") at a purchase price of \$0.155 per share;

WHEREAS, the Arrowhead and the Investors wish to purchase and the Company wishes to sell for cash up to 7,000,000 shares of Series B Preferred Stock, par value \$0.0001 per share (the "**Purchase Series B Stock**", together with the Conversion Series B Stock, the "**Series B Stock**") at a purchase price of \$0.155 per share;

NOW, THEREFORE, in consideration for the mutual promises set forth herein and for other good and valuable consideration, the parties hereby agree as follows:

1. Purchase and Sale of Preferred Stock.

1.1 Sale and Issuance of Series B Preferred Stock and Series C Preferred Stock; Cancellation of Notes.

(a) Simultaneously with the sale and purchase of the Series B and Series C Stock, the Company shall adopt and file with the Secretary of State of the State of Delaware the Third Amended and Restated Certificate of Incorporation of the Company in the form of Exhibit B attached to this Agreement (the "**Restated Certificate**").

(b) Subject to the terms and conditions of this Agreement, each Investor agrees to purchase at the Closing and the Company agrees to sell and issue to each Investor at the Closing, that number of shares of Series B Stock and/or Series C Stock set forth opposite each Investor's name on Exhibit A, at a purchase price of fifteen cents (\$0.15) per share in the form of (a) cash, solely with respect to the Purchase Series B Stock, (paid by check or wire transfer) in United States Dollars to the Company and/or (b) cancellation of indebtedness of the Company owed to such Investor, solely with respect to the Conversion Series B Stock and the Series C Stock. The shares of Series B Stock and Series C Stock issued to the Investors pursuant to this Agreement shall be referred to in this Agreement as the "**Shares**."

1.2 Closing; Delivery.

(a) The consummation of the purchase and sale of the Shares (the “**Closing**”) shall be conditional upon the satisfaction of the closing conditions set forth herein, and take place on [date] at the Company’s principal office at 201 South Lake Avenue, Suite 703, Pasadena, California 91101 or at such other time and place as the Company and the Investors mutually agree upon.

(b) As consideration for the portion of the Shares issued in exchange for cancellation of the Indebtedness and effective upon the Closing without any further action by the parties, the Indebtedness shall be deemed cancelled.

(c) Following the Closing, and conditional upon the cancellation of the Indebtedness, the Company shall deliver to such Investor a certificate representing the Shares being purchased by such Investor at the Closing.

1.3 Defined Terms Used in this Agreement. In addition to the terms defined above, the following terms used in this Agreement shall be construed to have the meanings set forth or referenced below.

“**Code**” means the Internal Revenue Code of 1986, as amended.

“**Investors’ Rights Agreement**” means the Amended and Restated Investors’ Rights Agreement between the Company and certain of its stockholders and investors, dated as of April 17, 2008.

“**Material Adverse Effect**” means a material adverse effect on the business, assets (including intangible assets), liabilities, financial condition, property or results of operations of the Company, taken as a whole.

“**Investor**” means each of the Investors who is a party to this Agreement.

“**Securities Act**” means the Securities Act of 1933, as amended.

“**to the Company’s knowledge**” shall mean the actual knowledge of Christopher Anzalone and Kenneth C. Myszkowski.

2. Representations and Warranties of the Company. The Company hereby represents and warrants to each Investor the following:

2.1 Organization, Good Standing, Corporate Power and Qualification. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and has all requisite corporate power and authority to carry on its business as presently conducted and as proposed to be conducted. The Company is duly qualified to transact business and is in good standing in each jurisdiction in which the nature of its business or its ownership of its properties requires it to be so qualified, except where a failure to be so qualified would not have a Material Adverse Effect.

2.2 Capitalization. Immediately prior to the Closing, the authorized capital of the Company consists of:

(a) 250,000,000 shares of Common Stock, \$0.0001 par value per share (“**Common Stock**”), 140,812,123 shares of which are issued and outstanding. All of the outstanding shares of Common Stock have been duly authorized, are fully paid and nonassessable and were issued in compliance with all applicable federal and state securities laws.

(b) 75,000,000 shares of Preferred Stock, \$0.0001 par value per share, of which (i) 5,000 shares have been designated Series A Preferred Stock, \$0.0001 par value per shares (“Series A Stock”), 2,950 shares of which are issued and outstanding, each of which shares is convertible into 1,734.16 shares of common stock, subject to adjustment as set forth in the Company’s Articles of Incorporation, (ii) 39,000,000 million shares have been designated Series B Preferred Stock, \$0001 par value per shares (“Series B Stock”), and 26,000,000 million shares have been designated Series C Preferred Stock, \$0001 par value per shares (“Series C Stock”).

(c) There are issued and outstanding options to purchase 7,840,557 shares of Common Stock pursuant to the Insert Therapeutics, Inc. (n/k/a Calando Pharmaceuticals, Inc.) 2000 Stock Option/Stock Issuance Plan and the Calando 2005 Stock Option and Stock Incentive Plan.

(d) There are issued and outstanding warrants to purchase 3,675,473 shares of Common Stock. Except for (i) the rights provided in the Investors’ Rights Agreement, (ii) the securities and rights described in Section 2.2(b), Section 2.2(c), and Section 2.2(d) of this Agreement, and (iii) the certain of the demand notes (which shall be cancelled effective upon the Closing), there are no outstanding options, warrants, rights (including conversion or preemptive rights and rights of first refusal or similar rights) or agreements, orally or in writing, to purchase or acquire from the Company any shares of Common Stock or any securities convertible into or exchangeable for shares of Common Stock or Preferred Stock.

2.3 Subsidiaries. The Company does not currently own or control, directly or indirectly, any interest in any other corporation, partnership, trust, joint venture, limited liability company, association, or other business entity. The Company is not a participant in any joint venture, partnership or similar arrangement.

2.4 Authorization. All corporate action required to be taken by the Company’s Board of Directors and stockholders in order to authorize the Company to enter into this Agreement, and to issue the Shares at the Closing and the Common Stock issuable upon conversion of the Shares, has been taken or will be taken prior to the Closing. All action on the part of the officers of the Company necessary for the execution and delivery of this Agreement, the performance of all obligations of the Company under this Agreement to be performed as of the Closing, and the issuance and delivery of the Shares has been taken or will be taken prior to the Closing. This Agreement constitutes the valid and legally binding obligation of the Company, enforceable against the Company in accordance with its respective terms, except (i) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, or other laws of general application relating to or affecting the enforcement of creditors’ rights generally, or (ii) as limited by laws relating to the availability of specific performance, injunctive relief, or other equitable remedies.

2.5 Valid Issuance of Shares. The Shares, when issued, sold and delivered in accordance with the terms and for the consideration set forth in this Agreement, will be validly issued, fully paid and nonassessable and free of restrictions on transfer other than restrictions on transfer under applicable state and federal securities laws and liens or encumbrances created by or imposed by an Investor. Assuming the accuracy of the representations of the Investors in Section 3 of this Agreement and subject to the filings described in Section 2.6(ii) below, the Shares will be issued in compliance with all applicable federal and state securities laws. The Common Stock issuable upon conversion of the Shares has been duly reserved for issuance, and upon issuance in accordance with the terms of the Restated Certificate, will be validly issued, fully paid and nonassessable and free of restrictions on transfer other than restrictions on transfer under applicable federal and state securities laws and liens or encumbrances created by or imposed by an Investor. Based in part upon the representations of the Investors in Section 3 of this Agreement, and subject to Section 2.6 below, the Common Stock issuable upon conversion of the Shares will be issued in compliance with all applicable federal and state securities laws.

2.6 Governmental Consents and Filings. Assuming the accuracy of the representations made by the Investors in Section 3 of this Agreement, no consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any federal, state or local governmental authority is required on the part of the Company in connection with the consummation of the transactions contemplated by this Agreement, except for (i) the filing of the Restated Certificate, and (ii) filings pursuant to Regulation D of the Securities Act, and applicable state securities laws, which have been made or will be made in a timely manner.

2.7 Compliance with Other Instruments. The execution, delivery and performance by the Company of this Agreement, and the consummation of the transactions contemplated hereby, do not and will not, after the giving of notice, the lapse of time or both, or otherwise, violate or constitute a default under (a) any provisions of the Restated Certificate (following the filing of same) or Bylaws of the Company, (b) any term, provision or covenant of any note, indenture, mortgage or material contract to which the Company is a party or by which it is bound, or (c) to the Company's knowledge, any provision of federal or state statute, rule or regulation applicable to the Company or any judgment, order, writ or decree to which the Company is a party or by which the Company is bound, except in each case, where such violation or default would not have a Material Adverse Effect.

3. Representations and Warranties of the Investors. Each Investor hereby represents and warrants to the Company, severally and not jointly, that:

3.1 Authorization. Each Investor has full power and authority to enter into this Agreement. This Agreement constitutes valid and legally binding obligations of the Investor, enforceable in accordance with their terms, except as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, and any other laws of general application affecting enforcement of creditors' rights generally, and as limited by laws relating to the availability of a specific performance, injunctive relief, or other equitable remedies.

3.2 Purchase Entirely for Own Account. This Agreement is made with the Investor in reliance upon the Investor's representation to the Company, which by the Investor's execution of this Agreement, the Investor hereby confirms, that the Shares to be acquired by the Investor will be acquired solely for investment for the Investor's own account, not as a nominee or agent, and not with a view to the resale or distribution of any part thereof, and that the Investor has no present intention of selling, granting any participation in, or otherwise distributing the same. By executing this Agreement, the Investor further represents that the Investor does not presently have any contract, undertaking, agreement or arrangement with any Person to sell, transfer or grant participations to such Person or to any third person, with respect to any of the Shares. The Investor has not been formed for the specific purpose of acquiring the Shares.

3.3 Disclosure of Information. The Investor has had an opportunity to discuss the Company's business, management, financial affairs and the terms and conditions of the offering of the Shares with the Company's management. The Investor has received all information requested by such Investor and had all questions concerning the foregoing and the Shares answered to such Investor's satisfaction prior to such Investor's execution and delivery of this Agreement. The foregoing, however, does not limit or modify the representations and warranties of the Company in Section 2 of this Agreement or the right of the Investors to rely thereon.

3.4 Restricted Securities. The Investor understands that the Shares have not been, and will not be, registered under the Securities Act, by reason of a specific exemption from the registration provisions of the Securities Act which depends upon, among other things, the bona fide nature of the investment intent and the accuracy of the Investor's representations as expressed herein. The Investor understands that the Shares are "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to these laws, the Investor must hold the Shares indefinitely unless they are registered with the Securities and Exchange Commission and qualified by state authorities, or an exemption from such registration and qualification requirements is available. The Investor acknowledges that the Company has no obligation to register or qualify the Shares, or the Common Stock into which it may be converted, for resale. The Investor further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements including, but not limited to, the time and manner of sale, the holding period for the Shares, and on requirements relating to the Company which are outside of the Investor's control, and which the Company is under no obligation and may not be able to satisfy.

3.5 No Public Market. The Investor understands that no public market now exists for the Shares, and that the Company has made no assurances that a public market will ever exist for the Shares.

3.6 Legends. The Investor understands that the Shares and any securities issued in respect of or exchange for the Shares, may bear one or all of the following legends:

(a) "THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH TRANSFER MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933."

(b) Any legend required by the securities laws of any state to the extent such laws are applicable to the Shares represented by the certificate so legended.

3.7 Accredited Investor. The Investor is an accredited investor as defined in Rule 501(a) of Regulation D promulgated under the Securities Act, which definition is summarized on Exhibit C attached hereto.

3.8 No General Solicitation. Neither the Investor, nor any of its officers, directors, employees, agents, stockholders or partners has either directly or indirectly, including through a broker or finder (a) engaged in any general solicitation, or (b) published any advertisement in connection with the offer and sale of the Shares.

3.9 Exculpation Among Investors. Each Investor acknowledges that it is not relying upon any person, firm or corporation, other than the Company and its officers and directors, in making its investment or decision to invest in the Company. Each Investor agrees that no Investor nor the respective controlling persons, officers, directors, partners, agents, or employees of any Investor shall be liable to any other Investor for any action heretofore or hereafter taken or omitted to be taken by any of them in connection with the purchase of the Shares.

3.10 Residence. If the Investor is an individual, then the Investor resides in the state or province identified in the address of the Investor set forth on Exhibit A; if the Investor is a partnership, corporation, limited liability company or other entity, then the office or offices of the Investor in which its principal place of business is located is at the address or addresses of the Investor set forth on Exhibit A.

4. Miscellaneous.

4.1 Survival of Warranties. Unless otherwise set forth in this Agreement, the representations and warranties of the Company and the Investors contained in or made pursuant to this Agreement shall survive the execution and delivery of this Agreement and the Closing and shall in no way be affected by any investigation of the subject matter thereof made by or on behalf of the Investors or the Company.

4.2 Transfer; Successors and Assigns. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

4.3 Governing Law. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware, without regard to its principles of conflicts of laws.

4.4 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement may also be executed and delivered by facsimile signature and in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

4.5 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

4.6 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient, and if not so confirmed, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their address as set forth on the signature page or Exhibit A, or to such e-mail address, facsimile number or address as subsequently modified by written notice given in accordance with this Section 6.7.

4.7 Attorney's Fees. If any action at law or in equity (including arbitration) is necessary to enforce or interpret the terms of this Agreement, the prevailing party shall be entitled to reasonable attorney's fees, costs and necessary disbursements in addition to any other relief to which such party may be entitled.

4.8 Amendments and Waivers. Any term of this Agreement may be amended, terminated or waived only with the written consent of the Company and the holders of at least a majority of the then-outstanding Shares. Any amendment or waiver effected in accordance with this Section 6.10 shall be binding upon the Investors and each transferee of the Shares (or the Common Stock issuable upon conversion thereof), each future holder of all such securities, and the Company. Notwithstanding anything to the contrary contained herein, Section 4 may not be amended, terminated or waived.

4.9 Severability. The invalidity of unenforceability of any provision hereof shall in no way affect the validity or enforceability of any other provision.

4.10 Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power or remedy of such non-breaching or non-defaulting party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

4.11 Entire Agreement. This Agreement (including the Exhibits hereto) and the Restated Certificate constitute the full and entire understanding and agreement among the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing among the parties are expressly canceled.

INVESTOR:

ARROWHEAD RESEARCH CORP.
(Print Name of Investor)

By: /s/ Kenneth Myszkowski
Name: Kenneth Myszkowski
Title: Chief Financial Officer
Address: 201 South Lake Avenue, Suite 703 Pasadena, CA
91101

EXHIBIT A
Schedule of Investors

Arrowhead Research Corporation
201 South Lake Avenue
Suite 703
Pasadena, CA 91101

<u>Investment Amount</u>	<u>Method of Payment</u>	<u>Number of Shares Purchased</u>
\$1,000,000	Cash	6,451,613 Shares of Series B Preferred Stock
\$2,152,787	Cancellation of New Indebtedness	13,888,948 Shares of Series B Preferred Stock
\$5,946,840*	Cancellation of Old Indebtedness	38,366,710 Shares of Series C Preferred Stock

FORM OF SERIES A PREFERRED STOCK PURCHASE AGREEMENT

THIS SERIES A PREFERRED STOCK PURCHASE AGREEMENT (the “**Agreement**”) is made as of the ___th day of January, 2011 by and among Ablaris Therapeutics Inc., a Delaware corporation (the “**Company**”), the investor listed on Exhibit A attached to this Agreement (the “**Purchaser**”).

The parties hereby agree as follows:

1. Purchase and Sale of Preferred Stock.

1.1 Sale and Issuance of Series A Preferred Stock.

(a) The Company shall adopt and file with the Secretary of State of the State of Delaware on or before the Initial Closing (as defined below) the Amended and Restated Certificate of Incorporation in the form of Exhibit B attached to this Agreement (the “**Restated Certificate**”).

(b) Subject to the terms and conditions of this Agreement, each Purchaser agrees to purchase at the Closing and the Company agrees to sell and issue to the Purchaser at the Closing that number of shares of Series A Preferred Stock set forth opposite each Purchaser’s name on Exhibit A, at a purchase price of \$1.00 per share. The shares of Series A Preferred Stock issued to the Purchasers pursuant to this Agreement (including any shares issued at the Initial Closing (the “**Initial Shares**”) and any Additional Shares, as defined below) shall be referred to in this Agreement as the “**Shares**.”

1.2 Closing; Delivery.

(a) The purchase and sale of the Initial Shares shall take place remotely via the exchange of documents and signatures, at 10:00 a.m., on January __, 2010, or at such other time and place as the Company and the Purchasers mutually agree upon, orally or in writing (which time and place are designated as the “**Initial Closing**”). In the event there is more than one closing, the term “**Closing**” shall apply to each such closing unless otherwise specified.

(b) At each Closing, the Company shall deliver to each Purchaser a certificate representing the Shares being purchased by such Purchaser at such Closing against payment of the purchase price therefor by check payable to the Company, by wire transfer to a bank account designated by the Company, by cancellation or conversion of indebtedness of the Company to Purchaser, or by any combination of such methods.

1.3 Sale of Additional Shares of Preferred Stock. After the Initial Closing, the Company may sell, on the same terms and conditions as those contained in this Agreement, up to the balance of additional shares of Series A Preferred Stock (the “**Additional Shares**”), to one or more purchasers (the “**Additional Purchasers**”), provided that (i) such subsequent sale is consummated prior to 90 days after the Initial Closing, (ii) each Additional Purchaser shall become a party to the Transaction Agreements, (as defined below), by executing

and delivering a counterpart signature page to each of the Transaction Agreements, (iii) each of the Purchasers is given prior notice of the terms and timing of such Additional Closing. Exhibit A to this Agreement shall be updated to reflect the number of Additional Shares purchased at each such Closing and the parties purchasing such Additional Shares.

1.4 Use of Proceeds. In accordance with the directions of the Company's Board of Directors, the Company will use the proceeds from the sale of the Shares for product development and other general corporate purposes.

1.5 Defined Terms Used in this Agreement. In addition to the terms defined above, the following terms used in this Agreement shall be construed to have the meanings set forth or referenced below.

"Affiliate" means, with respect to any specified Person, any other Person who or which, directly or indirectly, controls, is controlled by, or is under common control with such specified Person, including, without limitation, any partner, officer, director, member or employee of such Person and any venture capital fund now or hereafter existing that is controlled by or under common control with one or more general partners or managing members of, or shares the same management company with, such Person.

"Code" means the Internal Revenue Code of 1986, as amended.

"Company Intellectual Property" means all patents, patent applications, trademarks, trademark applications, service marks, service mark applications, tradenames, copyrights, trade secrets, domain names, information and proprietary rights and processes, similar or other intellectual property rights, subject matter of any of the foregoing, tangible embodiments of any of the foregoing, licenses in to and under any of the foregoing, in any and all such cases that are owned by the Company or used by the Company in the conduct of the Company's business as now conducted and as presently proposed to be conducted.

"Registration Rights Agreement" means the agreement between the Company and the Purchasers dated as of the date of the Initial Closing, in the form of Exhibit C attached to this Agreement.

"Knowledge," including the phrase **"to the Company's knowledge,"** shall mean the actual knowledge after reasonable investigation of the Company.

"Material Adverse Effect" means a material adverse effect on the business, assets (including intangible assets), liabilities, financial condition, property, or results of operations of the Company.

"Person" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

"Purchaser" means each of the Purchasers who is initially a party to this Agreement and any Additional Purchaser who becomes a party to this Agreement at a subsequent Closing under Section 1.3.

“**Securities Act**” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“**Series A Preferred Stock**” means the Series A Preferred Stock of the Company issued under the terms of the Restated Certificate.

“**Shares**” means the Initial Shares issued at the Initial Closing and any Additional Shares issued at a subsequent Closing under Section 1.3.

“**Transaction Agreements**” means this Agreement and the Registration Rights Agreement.

2. Representations and Warranties of the Company. The Company hereby represents and warrants to each Purchaser as follows.

2.1 Organization, Good Standing, Corporate Power and Qualification. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and has all requisite corporate power and authority to carry on its business as presently conducted and as proposed to be conducted. The Company is duly qualified to transact business and is in good standing in each jurisdiction in which the failure to so qualify would have a Material Adverse Effect.

2.2 Capitalization. All of the outstanding securities of the Company have been duly authorized, are fully paid and nonassessable and were issued in compliance with all applicable federal and state securities laws. The authorized capital of the Company consists, immediately prior to the Initial Closing, of:

(a) 20,000,000 shares of Common Stock, 10,000,000 shares of which are issued and outstanding immediately prior to the Initial Closing.

(b) 10,000,000 shares of Preferred Stock, 4,000,000 of which have been designated Series A Preferred Stock, none of which are issued and outstanding immediately prior to the Initial Closing. The rights, privileges and preferences of the Preferred Stock are as stated in the Restated Certificate and as provided by the general corporation law of the jurisdiction of the Company’s incorporation.

(c) Except for (A) the conversion privileges of the Shares to be issued under this Agreement, and (B) the rights provided in the Registration Rights Agreement, there are no outstanding options, warrants, rights (including conversion or preemptive rights and rights of first refusal or similar rights) or agreements, orally or in writing, to purchase or acquire from the Company any shares of Common Stock or Series A Preferred Stock, or any securities convertible into or exchangeable for shares of Common Stock or Series A Preferred Stock.

(d) The Company is under no obligation, including, but not limited to, under its stock purchase agreements or stock option documents, to accelerate vesting (or lapse a repurchase right) or make other changes in the vesting provisions or other terms of any agreement or understanding upon the occurrence of any event or combination of events.

2.3 Subsidiaries. The Company does not currently own or control, directly or indirectly, any interest in any other corporation, partnership, trust, joint venture, limited liability company, association, or other business entity.

2.4 Authorization. All corporate action required to be taken by the Company's Board of Directors and stockholders in order to authorize the Company to enter into the Transaction Agreements, and to issue the Shares at the Closing and the Common Stock issuable upon conversion of the Shares, has been taken or will be taken prior to the Closing. All action on the part of the officers of the Company necessary for the execution and delivery of the Transaction Agreements, the performance of all obligations of the Company under the Transaction Agreements to be performed as of the Closing, and the issuance and delivery of the Shares has been taken or will be taken prior to the Closing. The Transaction Agreements, when executed and delivered by the Company, shall constitute valid and legally binding obligations of the Company, enforceable against the Company in accordance with their respective terms except (i) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, or other laws of general application relating to or affecting the enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief, or other equitable remedies, or (iii) to the extent the indemnification provisions contained in the Registration Rights Agreement may be limited by applicable federal or state securities laws.

2.5 Valid Issuance of Shares. The Shares, when issued, sold and delivered in accordance with the terms and for the consideration set forth in this Agreement, will be validly issued, fully paid and nonassessable and free of restrictions on transfer other than restrictions on transfer under the Transaction Agreements, applicable state and federal securities laws and liens or encumbrances created by or imposed by a Purchaser. Assuming the accuracy of the representations of the Purchasers in Section 3 of this Agreement and subject to the filings described in Section 2.6(ii) below, the Shares will be issued in compliance with all applicable federal and state securities laws. The Common Stock issuable upon conversion of the Shares has been duly reserved for issuance, and upon issuance in accordance with the terms of the Restated Certificate, will be validly issued, fully paid and nonassessable and free of restrictions on transfer other than restrictions on transfer under the Transaction Agreements, applicable federal and state securities laws and liens or encumbrances created by or imposed by a Purchaser.

2.6 Governmental Consents and Filings. Assuming the accuracy of the representations made by the Purchasers in Section 3 of this Agreement, no consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any federal, state or local governmental authority is required on the part of the Company in connection with the consummation of the transactions contemplated by this Agreement, except for (i) the filing of the Restated Certificate, which will have been filed as of the Initial Closing, and (ii) filings pursuant to Regulation D of the Securities Act, and applicable state securities laws, which have been made or will be made in a timely manner.

2.7 Litigation. There is no action, suit, proceeding or investigation by or against the Company pending or which the Company intends to initiate.

2.8 Intellectual Property. The Company possesses, or will possess at Closing, sufficient and enforceable legal rights to such Company Intellectual Property as necessary for the operation of the Company's business as now conducted and as presently proposed to be conducted and possesses sufficient and enforceable legal rights to all Company Intellectual Property licensed to the Company as necessary for the operation of the Company's business as now conducted and as presently proposed to be conducted, and without any known conflict with, or infringement of, the rights of others. The Company has not received any written communications alleging that the Company has violated or, by conducting the Company's business, would violate any of the patents, trademarks, service marks, tradenames, copyrights, trade secrets, mask works or other proprietary or intellectual property rights or processes of any other Person. To the Company's knowledge, it will not be necessary to use any inventions of any of its employees or consultants (or persons it currently intends to hire) made prior to their employment by the Company. Each employee and consultant has assigned to the Company all intellectual property rights he or she owns that are related to the Company's business as now conducted and as presently proposed to be conducted.

2.9 Compliance with Other Instruments. The Company is not in violation or default of any provisions of its Restated Certificate or Bylaws, or, to its knowledge, of any provision of federal or state statute, rule or regulation applicable to the Company, the violation of which would have a Material Adverse Effect.

2.10 Agreements; Actions.

(a) Except for the Transaction Agreements and the M.D. Anderson License, there are no agreements, understandings, instruments, contracts or proposed transactions to which the Company is a party or by which it is bound that involve material obligations (contingent or otherwise) of, or payments to, the Company.

(b) The Company has not (i) declared or paid any dividends, or authorized or made any distribution upon or with respect to any class or series of its capital stock, (ii) incurred any indebtedness for money borrowed or (iii) made any loans or advances to any Person.

2.11 Rights of Registration. Except as provided in the Registration Rights Agreement, the Company is not under any obligation to register under the Securities Act any of its currently outstanding securities or any securities issuable upon exercise or conversion of its currently outstanding securities.

2.12 Absence of Liens. The property and assets that the Company owns are free and clear of all mortgages, deeds of trust, liens, loans and encumbrances, except for statutory liens for the payment of current taxes that are not yet delinquent and encumbrances and liens that arise in the ordinary course of business and do not materially impair the Company's ownership or use of such property or assets.

2.13 Disclosure. The Company has made available to the Purchasers all the information reasonably available to the Company that the Purchasers have requested for deciding whether to acquire the Shares. To the Company's knowledge, no representation or

warranty of the Company contained in this Agreement, and no certificate furnished or to be furnished to Purchasers at the Closing contains any untrue statement of a material fact or omits to state a material fact necessary in order to make the statements contained herein or therein not misleading in light of the circumstances under which they were made. It is understood that this representation is qualified by the fact that the Company has not delivered to the Purchasers, and has not been requested to deliver, a private placement or similar memorandum or any written disclosure of the types of information customarily furnished to purchasers of securities.

3. Representations and Warranties of the Purchasers. Each Purchaser hereby represents and warrants to the Company, severally and not jointly, that:

3.1 Authorization. The Purchaser has full power and authority to enter into the Transaction Agreements. The Transaction Agreements to which such Purchaser is a party, when executed and delivered by the Purchaser, will constitute valid and legally binding obligations of the Purchaser, enforceable in accordance with their terms, except (a) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, and any other laws of general application affecting enforcement of creditors' rights generally, and as limited by laws relating to the availability of specific performance, injunctive relief, or other equitable remedies, or (b) to the extent the indemnification provisions contained in the Registration Rights Agreement may be limited by applicable federal or state securities laws.

3.2 Purchase Entirely for Own Account. This Agreement is made with the Purchaser in reliance upon the Purchaser's representation to the Company, which by the Purchaser's execution of this Agreement, the Purchaser hereby confirms, that the Shares to be acquired by the Purchaser will be acquired for investment for the Purchaser's own account, not as a nominee or agent, and not with a view to the resale or distribution of any part thereof, and that the Purchaser has no present intention of selling, granting any participation in, or otherwise distributing the same. By executing this Agreement, the Purchaser further represents that the Purchaser does not presently have any contract, undertaking, agreement or arrangement with any Person to sell, transfer or grant participations to such Person or to any third Person, with respect to any of the Shares. The Purchaser has not been formed for the specific purpose of acquiring the Shares.

3.3 Disclosure of Information. The Purchaser has had an opportunity to discuss the Company's business, management, financial affairs and the terms and conditions of the offering of the Shares with the Company's management and has had an opportunity to review the Company's facilities. The foregoing, however, does not limit or modify the representations and warranties of the Company in Section 2 of this Agreement or the right of the Purchasers to rely thereon.

3.4 Restricted Securities. The Purchaser understands that the Shares have not been, and will not be, registered under the Securities Act, by reason of a specific exemption from the registration provisions of the Securities Act which depends upon, among other things, the bona fide nature of the investment intent and the accuracy of the Purchaser's representations as expressed herein. The Purchaser understands that the Shares are "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to these laws, the Purchaser must hold the Shares indefinitely unless they are registered with the

Securities and Exchange Commission and qualified by state authorities, or an exemption from such registration and qualification requirements is available. The Purchaser acknowledges that the Company has no obligation to register or qualify the Shares, or the Common Stock into which it may be converted, for resale except as set forth in the Registration Rights Agreement. The Purchaser further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements including, but not limited to, the time and manner of sale, the holding period for the Shares, and on requirements relating to the Company which are outside of the Purchaser's control, and which the Company is under no obligation and may not be able to satisfy.

3.5 No Public Market. The Purchaser understands that no public market now exists for the Shares, and that the Company has made no assurances that a public market will ever exist for the Shares.

3.6 Legends. The Purchaser understands that the Shares and any securities issued in respect of or exchange for the Shares, may bear one or all of the following legends:

(a) "THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH TRANSFER MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933."

(b) Any legend set forth in, or required by, the other Transaction Agreements and any legend required by the securities laws of any state to the extent such laws are applicable to the Shares represented by the certificate so legended.

3.7 Accredited Investor. The Purchaser is an accredited investor as defined in Rule 501(a) of Regulation D promulgated under the Securities Act.

3.8 Foreign Investors. If the Purchaser is not a United States person (as defined by Section 7701(a)(30) of the Code), such Purchaser hereby represents that it has satisfied itself as to the full observance of the laws of its jurisdiction in connection with any invitation to subscribe for the Shares or any use of this Agreement, including (i) the legal requirements within its jurisdiction for the purchase of the Shares, (ii) any foreign exchange restrictions applicable to such purchase, (iii) any governmental or other consents that may need to be obtained, and (iv) the income tax and other tax consequences, if any, that may be relevant to the purchase, holding, redemption, sale, or transfer of the Shares. Such Purchaser's subscription and payment for and continued beneficial ownership of the Shares will not violate any applicable securities or other laws of the Purchaser's jurisdiction.

3.9 No General Solicitation. Neither the Purchaser, nor any of its officers, directors, employees, agents, stockholders or partners has either directly or indirectly, including through a broker or finder (a) engaged in any general solicitation, or (b) published any advertisement in connection with the offer and sale of the Shares.

3.10 Exculpation Among Purchasers. Each Purchaser acknowledges that it is not relying upon any Person, other than the Company and its officers and directors, in making its investment or decision to invest in the Company. Each Purchaser agrees that no Purchaser nor the respective controlling Persons, officers, directors, partners, agents, or employees of any Purchaser shall be liable to any other Purchaser for any action heretofore or hereafter taken or omitted to be taken by any of them in connection with the purchase of the Shares.

3.11 Residence. If the Purchaser is an individual, then the Purchaser resides in the state or province identified in the address of the Purchaser set forth on Exhibit A; if the Purchaser is a partnership, corporation, limited liability company or other entity, then the office or offices of the Purchaser in which its principal place of business is identified in the address or addresses of the Purchaser set forth on Exhibit A.

4. Conditions to the Purchasers' Obligations at Closing. The obligations of each Purchaser to purchase Shares at the Initial Closing are subject to the fulfillment, on or before such Closing, of each of the following conditions, unless otherwise waived:

4.1 Representations and Warranties; Performance. The representations and warranties of the Company contained in Section 2 shall be true and correct in all material respects as of such Closing, except that any such representations and warranties shall be true and correct in all respects where such representation and warranty is qualified with respect to materiality. Performance. The Company shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by the Company on or before such Closing.

4.2 Transaction Agreements. The Company and each Purchaser (other than the Purchaser relying upon this condition to excuse such Purchaser's performance hereunder) and the other stockholders of the Company named as parties thereto shall have executed and delivered the Transaction Agreements.

4.3 Restated Certificate. The Company shall have filed the Restated Certificate with the Secretary of State of Delaware on or prior to the Closing, which shall continue to be in full force and effect as of the Closing.

4.4 M.D. Anderson License. The Patent and Technology License by and between the Board of Regents of the University of Texas System, on behalf of the University of Texas M. D. Anderson Cancer Center and Arrowhead Research Corporation, shall have been fully executed and delivered to the Company (the "**M.D. Anderson License**").

5. Conditions of the Company's Obligations at Closing. The obligations of the Company to sell Shares to the Purchasers at the Initial Closing are subject to the fulfillment, on or before the Closing, of each of the following conditions, unless otherwise waived:

5.1 Representations and Warranties; Performance. The representations and warranties of each Purchaser contained in Section 3 shall be true and correct in all material respects as of such Closing. The Purchasers shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by them on or before such Closing.

5.2 Transaction Agreements. The each Purchaser and the other stockholders of the Company named as parties thereto shall have executed and delivered the Transaction Agreements.

5.3 M.D. Anderson License. The M. D. Anderson license shall have been fully executed and delivered to the Company.

6. Miscellaneous.

6.1 Successors and Assigns. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

6.2 Governing Law. This Agreement shall be governed by, and construed in accordance with, the laws of the State of California, regardless of the laws that might otherwise govern under applicable principles of conflicts of law.

6.3 Counterparts; Facsimile. This Agreement may be executed and delivered by facsimile signature and in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

6.4 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient, and if not so confirmed, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their address as set forth on the signature page or Exhibit A, or to such e-mail address, facsimile number or address as subsequently modified by written notice given in accordance with this Section 6.6. If notice is given to the Company, a copy shall also be sent to Goodwin Procter LLP, Three Embarcadero Center, 24th Floor, San Francisco, CA 94111 Attn: Ryan Murr.

6.5 Amendments and Waivers. Except as set forth in Section 1.3 of this Agreement, any term of this Agreement may be amended, terminated or waived only with the written consent of the Company and (i) the holders of at least a majority of the then-outstanding Shares or (ii) for an amendment, termination or waiver effected prior to the Initial Closing, Purchasers obligated to purchase a majority of the Shares to be issued at the Initial

Closing. Any amendment or waiver effected in accordance with this Section 6.5 shall be binding upon the Purchasers and each transferee of the Shares (or the Common Stock issuable upon conversion thereof), each future holder of all such securities, and the Company.

6.6 Severability. The invalidity or unenforceability of any provision hereof shall in no way affect the validity or enforceability of any other provision.

6.7 Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power or remedy of such non-breaching or non-defaulting party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

6.8 Entire Agreement. This Agreement (including the Exhibits hereto), the Restated Certificate and the other Transaction Agreements constitute the full and entire understanding and agreement between the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties are expressly canceled.

6.9 Dispute Resolution. Any unresolved controversy or claim arising out of or relating to this Agreement, except as (i) otherwise provided in this Agreement, or (ii) any such controversies or claims arising out of either party's intellectual property rights for which a provisional remedy or equitable relief is sought, shall be submitted to arbitration by one arbitrator mutually agreed upon by the parties, and if no agreement can be reached within thirty (30) days after names of potential arbitrators have been proposed by the American Arbitration Association (the "AAA"), then by one arbitrator having reasonable experience in corporate finance transactions of the type provided for in this Agreement and who is chosen by the AAA. The arbitration shall take place in Pasadena, California, in accordance with the AAA rules then in effect, and judgment upon any award rendered in such arbitration will be binding and may be entered in any court having jurisdiction thereof. There shall be limited discovery prior to the arbitration hearing as follows: (a) exchange of witness lists and copies of documentary evidence and documents relating to or arising out of the issues to be arbitrated, (b) depositions of all party witnesses and (c) such other depositions as may be allowed by the arbitrators upon a showing of good cause. Depositions shall be conducted in accordance with the California Code of Civil Procedure, the arbitrator shall be required to provide in writing to the parties the basis for the award or order of such arbitrator, and a court reporter shall record all hearings, with such record constituting the official transcript of such proceedings. The prevailing party shall be entitled to reasonable attorney's fees, costs, and necessary disbursements in addition to any other relief to which such party may be entitled. Each of the parties to this Agreement consents to personal jurisdiction for any equitable action sought in the U.S. District Court for the Central District of California or any court of the State of California having subject matter jurisdiction.

IN WITNESS WHEREOF, the parties have executed this Series A Preferred Stock Purchase Agreement as of the date first written above.

COMPANY:

By: _____

Name: _____
(print)

Title: _____

Address:

IN WITNESS WHEREOF, the parties have executed this Series A Preferred Stock Purchase Agreement as of the date first written above.

PURCHASERS:

(Print Name of Purchaser)

By: _____

No. Shares Purchased: _____

Name: _____
(print)

Title: _____

Address: _____

Telephone: _____

Email: _____

[SIGNATURE PAGE FOR PURCHASE AGREEMENT]

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO RULE 13a-14(a) OR RULE 15d-14(a)
OF THE SECURITIES EXCHANGE ACT OF 1934**

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: May 12, 2011

/s/ CHRISTOPHER ANZALONE

Christopher Anzalone
Chief Executive Officer

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO RULE 13a-14(a) OR RULE 15d-14(a)
OF THE SECURITIES EXCHANGE ACT OF 1934**

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 12, 2011

/s/ Kenneth A. Myszkowski

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

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO RULE 13a-14(b) OR RULE 15d-14(b)
OF THE SECURITIES EXCHANGE ACT OF 1934
AND 18 U.S.C. SECTION 1350**

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, 2011, 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 12, 2011

/s/ CHRISTOPHER ANZALONE

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 OF CHIEF FINANCIAL OFFICER
PURSUANT TO RULE 13a-14(b) OR RULE 15d-14(b)
OF THE SECURITIES EXCHANGE ACT OF 1934
AND 18 U.S.C. SECTION 1350**

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, 2011, 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 12, 2011

/s/ Kenneth A. Myszkowski

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.