

ARROWHEAD RESEARCH CORP

Form 10-Q

August 10, 2009

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**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 June 30, 2009.

**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)

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**Delaware**  
(State of incorporation)

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

**201 S. Lake Avenue, Suite 703**

**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 Exchange Act 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. (Checked one):

Large accelerated filer

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 outstanding of the issuer's classes of common equity, as of the latest practicable date is 55,400,230 shares of common stock as of August 10, 2009.

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

	(unaudited) June 30, 2009	September 30, 2008
<b>ASSETS</b>		
<b>CURRENT ASSETS</b>		
Cash and cash equivalents	\$ 1,909,185	\$ 10,093,585
Trade receivable, net of allowance for doubtful account of \$100,591 at June 30, 2009 and \$116,031 at September 30, 2008	393,813	4,054
Grant receivable, net of allowance for doubtful account of \$0		54,436
Other receivables	1,983	28,109
Other prepaid expenses	449,772	380,933
<b>TOTAL CURRENT ASSETS</b>	<b>2,754,753</b>	<b>10,561,117</b>
<b>PROPERTY AND EQUIPMENT</b>		
Computers, office equipment and furniture	374,991	571,616
Research equipment	932,683	1,986,117
Software	150,445	167,615
Leasehold improvements	88,470	115,871
	1,546,589	2,841,219
Less: Accumulated depreciation and amortization	(929,229)	(1,596,009)
<b>NET PROPERTY AND EQUIPMENT</b>	<b>617,360</b>	<b>1,245,210</b>
<b>INTANGIBLE AND OTHER ASSETS</b>		
Rent deposit	117,614	254,289
Patents, <i>Note 1.</i>	2,441,366	2,749,555
Investment in Nanotope Inc., equity basis, <i>Note 4.</i>	2,080,557	2,258,271
Investment in Leonardo Biosystems Inc., at cost	187,000	187,000
<b>TOTAL OTHER ASSETS</b>	<b>4,826,537</b>	<b>5,449,115</b>
<b>TOTAL ASSETS</b>	<b>\$ 8,198,650</b>	<b>\$ 17,255,442</b>
<b>LIABILITIES AND STOCKHOLDERS EQUITY</b>		
<b>CURRENT LIABILITIES</b>		
Accounts payable	\$ 1,398,813	\$ 1,342,000
Accrued expenses	843,790	844,549
Payroll liabilities	283,278	479,294
Accrued severance	23,500	250,000
Capital lease obligation short term, <i>Note 10.</i>	860,401	810,456
<b>TOTAL CURRENT LIABILITIES</b>	<b>3,409,782</b>	<b>3,726,299</b>
<b>LONG-TERM LIABILITIES</b>		
Notes payable, <i>Note 6.</i>	500,000	
Capital lease obligation long term, <i>Note 10.</i>	74,845	726,534
Accrued severance, <i>Note 11.</i>		500,000

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TOTAL LONG-TERM LIABILITIES	574,845	1,226,534
Minority interests		
Unidym Series C-1 Preferred Stock with liquidation preference and put option, <i>Note 7</i> .	500,000	
Commitment and contingencies, <i>Note 11</i> .		
<b>STOCKHOLDERS EQUITY, <i>Note 8</i>.</b>		
Common stock	46,220	42,950
Preferred stock		
Additional paid-in capital	105,012,634	97,756,126
Accumulated deficit during the development stage	(101,344,831)	(85,496,467)
<b>TOTAL STOCKHOLDERS EQUITY</b>	<b>3,714,023</b>	<b>12,302,609</b>
<b>TOTAL LIABILITIES AND STOCKHOLDERS EQUITY</b>	<b>\$ 8,198,650</b>	<b>\$ 17,255,442</b>

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

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

	Three Months Ended June 30, 2009	Three Months Ended June 30, 2008	Nine Months Ended June 30, 2009	Nine Months Ended June 30, 2008	May 7, 2003 (Inception) to June 30, 2009
<b>REVENUE, Note 1</b>	<b>\$ 2,633,191</b>	<b>\$ 235,372</b>	<b>\$ 3,570,564</b>	<b>\$ 1,362,999</b>	<b>\$ 7,320,056</b>
<b>OPERATING EXPENSES</b>					
Salaries	889,428	3,786,132	6,466,207	10,186,845	38,635,221
Consulting	406,212	902,031	1,348,962	2,172,230	7,955,118
General and administrative expenses	1,041,883	1,720,206	3,704,043	4,897,218	22,369,423
Research and development	2,519,325	3,620,983	7,957,928	7,239,712	52,931,996
Patent amortization	100,103	102,602	308,189	310,584	1,707,560
<b>TOTAL OPERATING EXPENSES</b>	<b>4,956,951</b>	<b>10,131,954</b>	<b>19,785,329</b>	<b>24,806,589</b>	<b>123,599,318</b>
<b>OPERATING LOSS</b>	<b>(2,323,760)</b>	<b>(9,896,582)</b>	<b>(16,214,765)</b>	<b>(23,443,590)</b>	<b>(116,279,262)</b>
<b>OTHER INCOME (EXPENSES)</b>					
Loss on equity of investment Nanotope	(48,302)		(177,714)		(292,443)
Gain on sale of stock in subsidiary					2,292,800
Gain on sale of equity of investment Ensysce			700,000		700,000
Loss on sale of fixed assets, net	(78,029)		(25,572)		(25,572)
Realized and unrealized gain (loss) in marketable securities					382,264
Interest income (expense), net	(78,526)	115,158	(130,373)	691,385	2,886,564
Other income					3,637
<b>TOTAL OTHER INCOME (EXPENSES)</b>	<b>(204,857)</b>	<b>115,158</b>	<b>366,341</b>	<b>691,385</b>	<b>5,947,250</b>
<b>LOSS BEFORE MINORITY INTERESTS</b>	<b>(2,528,617)</b>	<b>(9,781,424)</b>	<b>(15,848,424)</b>	<b>(22,752,205)</b>	<b>(110,332,012)</b>
Minority interests		1,994,088	60	4,475,059	15,287,738
<b>LOSS FROM CONTINUING OPERATIONS</b>	<b>(2,528,617)</b>	<b>(7,787,336)</b>	<b>(15,848,364)</b>	<b>(18,277,146)</b>	<b>(95,044,274)</b>
Loss from operation of discontinued Nanotechnica, Inc.					(1,342,505)
Loss on disposal of Nanotechnica, Inc. (July 2005 - September 2005)					(73,797)
Loss from operation of discontinued Aonex Technologies, Inc.		(21,170)		(459,949)	(5,188,999)
Gain on sale of Aonex Technologies, Inc.		306,344		306,344	306,344
Provision for income taxes					(1,600)
<b>LOSS FROM DISCONTINUED OPERATIONS</b>		<b>285,174</b>		<b>(153,605)</b>	<b>(6,300,557)</b>
<b>NET LOSS</b>	<b>\$ (2,528,617)</b>	<b>\$ (7,502,162)</b>	<b>\$ (15,848,364)</b>	<b>\$ (18,430,751)</b>	<b>\$ (101,344,831)</b>

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Loss per share from continuing operations, diluted and undiluted	\$	(0.06)	\$	(0.20)	\$	(0.37)	\$	(0.47)
Net income (loss) per share from discontinued operations, diluted and undiluted	\$		\$	0.01	\$		\$	(0.01)
Loss per share, diluted and undiluted	\$	(0.06)	\$	(0.19)	\$	(0.37)	\$	(0.48)
Weighted average shares outstanding, diluted and undiluted		43,353,848		38,891,995		43,074,294		38,756,939

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

**Table of Contents****Arrowhead Research Corporation and Subsidiaries****(A Development Stage Company)****Consolidated Statement of Stockholders Equity****from inception through June 30, 2009****(Unaudited)**

	Common Stock		Additional Paid-in-Capital	Accumulated Deficit during the Development Stage	Totals
	Shares	Amount			
<b>Initial Issuance of Stock:</b>					
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)
<b>Balance at September 30, 2003</b>	<b>4,680,000</b>	<b>4,680</b>	<b>1,510,320</b>	<b>(95,238)</b>	<b>1,419,762</b>
Exercise of stock options @ \$0.20 per share	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)	(2,528,954)
<b>Balance at September 30, 2004</b>	<b>13,631,546</b>	<b>13,645</b>	<b>12,059,997</b>	<b>(2,624,192)</b>	<b>9,449,450</b>
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
Purchase of Insert Therapeutics shares @ \$0.28/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)	(6,854,918)
<b>Balance at September 30, 2005</b>	<b>27,984,194</b>	<b>27,997</b>	<b>35,578,580</b>	<b>(9,479,110)</b>	<b>26,127,467</b>
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 to Dr. M. Moskovits as payment for application of patents	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 to Caltech as payment for legal fees	25,364	25	149,975		150,000
Purchase of Calando Pharmaceuticals, Inc. @ \$5.17/share	208,382	208	1,077,125		1,077,333
Stock-based compensation			1,270,339		1,270,339
Accelerated stock options			99,139		99,139
Net loss for the year ended September 30, 2006				(18,997,209)	(18,997,209)



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<b>Balance at September 30, 2006</b>	<b>34,143,588</b>	<b>34,156</b>	<b>59,113,369</b>	<b>(28,476,319)</b>	<b>30,671,206</b>
Exercise of stock options	186,164	186	434,541		434,727
Common stock issued, net	2,849,446	2,849	15,149,366		15,152,215
Arrowhead's increase in proportionate share of Insert Therapeutics' equity			2,401,394		2,401,394
Common stock issued for purchase of Carbon Nanotechnologies, Inc.	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)	(29,931,118)
<b>Balance at September 30, 2007</b>	<b>38,610,420</b>	<b>38,622</b>	<b>84,672,783</b>	<b>(58,407,437)</b>	<b>26,303,968</b>
Exercise of stock options	105,357	106	289,921		290,027
Common stock issued, net	3,863,989	3,867	6,956,718		6,960,585
Arrowhead's increase in proportionate share of Unidym's equity			1,720,962		1,720,962
Common stock issued @ \$2.72 per share to Rice University as a gift	50,000	50	135,950		136,000
Common stock issued to purchase shares of Unidym, Inc.	70,547	71	199,929		200,000
Common stock issued to purchase MASA Energy, LLC	105,049	105	309,895		310,000
Common stock issued to Unidym for the acquisition of Nanoconduction	114,155	114	249,886		250,000
Common stock issued @ \$2.18/sh to Alan Gotcher	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)	(27,089,030)
<b>Balance at September 30, 2008</b>	<b>42,934,517</b>	<b>42,950</b>	<b>97,756,126</b>	<b>(85,496,467)</b>	<b>12,302,609</b>
Stock-based compensation			727,934		727,934
Net loss for the three months ended December 31, 2008				(8,030,468)	(8,030,468)
<b>Balance at December 31, 2008</b>	<b>42,934,517</b>	<b>42,950</b>	<b>98,484,060</b>	<b>(93,526,935)</b>	<b>5,000,075</b>
Stock-based compensation			695,275		695,275
Net loss for the three months ended March 31, 2009				(5,289,279)	(5,289,279)
<b>Balance at March 31, 2009</b>	<b>42,934,517</b>	<b>42,950</b>	<b>99,179,335</b>	<b>(98,816,214)</b>	<b>406,071</b>
Stock-based compensation			555,292		555,292
Common Stock issued to Unidym Stockholder in exchange of Unidym's shares	1,324,625	1,326	687,479		688,805
Common Stock issued to TEL Ventures in exchange of Unidym's shares	1,944,444	1,944	970,278		972,222
Reclassification of former Unidym mezzanine debt to equity			1,500,000		1,500,000
Arrowhead's increase in proportionate share of Calando's equity			2,120,250		2,120,250
Net loss for the three months ended June 30, 2009				(2,528,617)	(2,528,617)
<b>Balance at June 30, 2009</b>	<b>46,203,586</b>	<b>46,220</b>	<b>105,012,634</b>	<b>(101,344,831)</b>	<b>3,714,023</b>

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

**Table of Contents****Arrowhead Research Corporation and Subsidiaries****( A Development Stage Company )****Consolidated Statements of Cash Flows****For the Nine months ended June 30, 2009 and 2008 and from inception through June 30, 2009****(unaudited)**

	Nine months ended June 30, 2009	Nine months ended June 30, 2008	Period from May 7, 2003 (Date of inception) to June 30, 2009
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>			
Net Loss	\$ (15,848,364)	\$ (18,430,752)	\$ (101,344,831)
Realized and unrealized (gain) loss on investment	(700,000)		(1,082,263)
Gain from sale of subsidiary		(306,344)	(306,344)
Loss on sale/donation of fixed assets	80,749		80,749
Stock issued as gift to Caltech			162,750
Stock issued as gift to Rice University		136,000	136,000
Stock issued for professional services			232,700
Stock issued for in-process research and development	1,661,027	200,000	12,535,365
Purchased-in-process research and development Nanoconduction			2,685,208
Stock-based compensation	1,978,771	2,570,013	9,395,356
Depreciation and amortization	792,524	849,736	4,535,565
Gain on sale of stock in subsidiary			(2,292,800)
Non-cash loss from equity investment	177,714		292,443
Minority interests		(4,475,059)	(16,287,926)
Increase (decrease) of cash flow from:			
Receivables	(309,197)	114,759	(396,636)
Prepaid research expense		474,605	(1)
Other prepaid expenses	(68,839)	(129,881)	(452,249)
Deposits	136,675	20,176	(119,674)
Accounts payable	56,543	(234,055)	766,274
Accrued expenses	103,024	137,838	460,101
Deferred revenue		(98,570)	
Accrued severance and other liabilities	(922,516)	29,446	323,967
<b>NET CASH (USED) IN OPERATING ACTIVITIES</b>	<b>(12,861,889)</b>	<b>(19,200,980)</b>	<b>(90,676,246)</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>			
Purchase of marketable securities US Treasury Bills			(18,575,915)
Purchase of property and equipment	(40,245)	(508,936)	(3,550,518)
Purchase of MASA Energy, LLC		(250,000)	(250,000)
Minority equity investment			(2,000,000)
Cash paid for interest in Nanotechnica			(4,000,000)
Cash paid for interest in Aonex			(5,000,000)
Cash paid for interest in Insert			(10,150,000)
Cash paid for interest in Calando	(800,000)		(8,800,000)
Cash paid for interest in Unidym	(1,100,000)	(5,000,000)	(13,101,000)
Cash paid for interest in Tego	1,700,000	(2,400,000)	(801,000)
Cash obtained from interest in Nanotechnica			4,000,000
Cash obtained from interest in Aonex			5,001,250
Cash obtained from interest in Insert			10,529,594
Cash obtained from interest in Calando	800,000		8,800,000
Cash obtained from interest in Unidym	1,100,000	5,000,000	13,101,000
Cash obtained from interest in Tego	(1,700,000)	2,400,000	801,000
Proceeds from sale of marketable securities US Treasury Bills			18,888,265
Proceeds from sale of investments	700,000		1,269,913
Proceeds from sale of subsidiary (net)		359,375	359,375
Proceeds from sale of fixed assets	103,011		103,011

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Payment for patents				(303,440)
Restricted cash				50,773
<b>NET CASH PROVIDED BY (USED) IN INVESTING ACTIVITIES</b>	762,766	(399,561)		(3,627,692)
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>				
Payments of capital leases	(601,744)			(741,754)
Proceeds of issuance of Calando debt	2,516,467			2,516,467
Proceeds from sale of stock in subsidiary	2,000,000	9,013,897		18,575,168
Proceeds from issuance of common stock and warrants, net		290,027		75,863,242
<b>NET CASH PROVIDED BY FINANCING ACTIVITIES</b>	3,914,723	9,303,924		96,213,123
<b>NET INCREASE (DECREASE) IN CASH</b>	(8,184,400)	(10,296,617)		1,909,185
<b>CASH AT BEGINNING OF PERIOD</b>	10,093,585	24,120,097		
<b>CASH AT END OF PERIOD</b>	\$ 1,909,185	\$ 13,823,480	\$	1,909,185
<b>Supplementary disclosures:</b>				
Interest paid	\$ 76,350	\$	\$	87,028
Income tax paid	\$ 4,800	\$ 4,800	\$	9,600

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

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SUPPLEMENTAL NON-CASH TRANSACTIONS

On March 23, 2005, 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 June 30, 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., the Company, 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 114,155 shares of Arrowhead stock with an estimated fair market value of \$250,000.

On June 11, 2009, the Company 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, the Company 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.

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

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**Arrowhead Research Corporation**

**Notes to Consolidated Financial Statements**

**June 30, 2009**

*Unless otherwise noted, (1) the term **Arrowhead Research** refers to Arrowhead Research Corporation, a Delaware corporation, (2) the terms **Arrowhead**, **the Company**, **we**, **us** and **our** refer to the ongoing business operations of Arrowhead and its subsidiaries, whether conducted through Arrowhead Research or a subsidiary of the Company, (3) the term **Common Stock** refers to Arrowhead Research's Common Stock, (4) the term **Warrant** refers to warrants to purchase Company Common Stock and (5) the term **subsidiary** refers to Unidym, Calando, Tego BioSciences Corporation and Agonn Systems, Inc.*

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

*Nature of Business and Going Concern*

Arrowhead is a development stage nanotechnology holding company that seeks to create stockholder value through the creation and operation of nanotechnology companies. Arrowhead currently owns two majority-owned subsidiaries, Unidym and Calando, two wholly-owned subsidiaries, Tego BioSciences Corporation ( **Tego** ) and Agonn Systems, Inc. ( **Agonn** ) and has minority investments in two early-stage nanotechnology companies, Nanotope, Inc. and Leonardo Biosystems, Inc. ( **LBS** ). Arrowhead's mission is to build value through the identification, development and commercialization of nanotechnology-related products and applications. Arrowhead is active in the operation of its subsidiaries, providing key management to the subsidiaries. The Company is currently focused almost exclusively on its lead subsidiary, Unidym, Inc. ( **Unidym** ) which anticipates initial sales of its transparent conductive materials into commercial markets in the near term. Arrowhead expects to allocate relatively little current capital to its other subsidiaries while maintaining the opportunity to obtain value from their technologies. The Company's three other majority-owned subsidiaries have shifted from operating activities to licensing/partnering models. The two minority holdings are separately financed. Unidym's products are intended to replace a key material used in touch panels, LCD displays, and thin-film solar cells. Arrowhead's business plan includes adding to its portfolio through selective acquisition and formation of new companies, as capital resources allow.

Arrowhead is incorporated in Delaware and its principal executive offices are located in Pasadena, California.

Arrowhead and its subsidiaries fund research and operations from cash on hand, government grants, license royalties and carbon nanotube (CNT) sales. Neither Arrowhead nor its subsidiaries derived revenue from product sales from its inception until the acquisition of Carbon Nanotechnologies, Inc. ( **CNI** ) in April 2007 by Arrowhead's consolidated subsidiary, Unidym. On May 1, 2009, Unidym transferred a portion of its assets for CNT manufacturing to Continental Carbon, a manufacturer of CNTs and carbon black, and Unidym is in the process of negotiating a license and supply agreement so that Continental Carbon can produce the majority of Unidym's CNT supply needs. The revenues associated with CNT's are expected to decrease significantly with the transfer.

*Going Concern*

At June 30, 2009, the Company had approximately \$1.9 million in cash to fund operations. Since September 30, 2008, the Company raised an additional \$7 million in capital, on a consolidated basis, through equity financing at the Arrowhead level and sales of equity and convertible loans by its subsidiaries. Subsequent to June 30, 2009, the Company completed a financing with gross offering proceeds of \$2.76 million. Even with this infusion of additional capital, the Company will still need to obtain more capital to meet its operating needs for fiscal 2010 and beyond. The Company is generating no significant revenue, and its fiscal 2009 operating losses and negative cash flows from operations raises doubts about its ability to continue as a going concern over the next 12 months and beyond. The accompanying financial statements do not reflect any adjustments that might result if the Company were unable to continue as a going concern.

The Company's Board of Directors has approved a strategy for the Company to focus on near term revenue opportunities, conserve cash resources and seek sources of new capital. To execute this strategy, the Company is focusing its development efforts on Unidym's products. Arrowhead's other subsidiaries have shifted from a focus on internal development to a focus on partnerships and licensing. This strategy is intended to conserve cash while maintaining the opportunity to obtain value from their technologies. In the third quarter of fiscal 2009, Calando completed license agreements for one of its drug delivery platforms and its associated clinical candidate for \$2.4 million in cash and potential future milestone and royalty payments. This transaction follows the effort that began in early 2008 with the merger of the Company's two biopharmaceutical subsidiaries, reduction in personnel, termination of preclinical development projects and a focus toward continuing Calando's clinical program. Calando is continuing the clinical development of its siRNA drug candidate and is seeking a development partner for this

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technology. Calando has closed its Pasadena, California laboratory facility and plans to outsource laboratory development, as needed. Unidym has also executed its plan to dramatically reduce staff and operations beginning with reduction in management personnel in the first quarter of fiscal 2009, the closure of its Houston, TX facility in the second quarter, the consolidation of its operations in Northern California, and the renegotiation of several

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key liabilities. Unidym also received \$700,000 from the sale of its ownership interest in Ensysce BioSciences Inc. ( Ensysce ), a Unidym affiliate. Unidym has shifted its strategy from one of building a vertically integrated company to working with partners to commercialize its technology. Tego and Agonn have limited operations and currently require very little cash. Cash conservation measures at the Arrowhead level have been taken and are expected to continue.

### *Summary of Significant Accounting Policies*

**Basis of Presentation** This report on Form 10-Q for the three months and nine months ended June 30, 2009, should be read in conjunction with the Company's Annual Report on Form 10-K for the year ended September 30, 2008 filed with the SEC on December 15, 2008. The accompanying unaudited consolidated financial statements have been prepared in accordance with generally accepted accounting principles for interim financial statements and with the instructions to Form 10-Q and Rule 10-01 of Regulation S-X. Accordingly, they do not include all the information and footnotes required by generally accepted accounting principles for complete financial statements. Certain prior period amounts have been reclassified to conform to the current period's presentation. In the opinion of management, all normal recurring adjustments considered necessary for a fair presentation have been included. Operating results for the three months and nine months ended June 30, 2009 are not necessarily indicative of the results that might be expected for the fiscal year ending September 30, 2009.

**Principles of Consolidation** The consolidated financial statements of the Company include the accounts of Arrowhead and its subsidiaries. Arrowhead's subsidiaries include Calando, which merged, in April 2008, with another of the Company's majority-owned subsidiaries, Insert Therapeutics. The merged entity continues to operate under the name Calando. The other subsidiaries include Unidym, Tego, Agonn and Aonex Technologies, Inc. ( Aonex ). Aonex was sold in May 2008 and is included in the results as Loss from Discontinued Operations. Nanotechnica, Inc. ( Nanotechnica ) a majority-owned subsidiary that was dissolved in June 2005 is also included in the cumulative results as Loss from Discontinued Operations. All significant intercompany accounts and transactions are eliminated in consolidation, and minority interests are accounted for in the consolidated statements of operations and the balance sheets.

**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. Significant estimates made in preparing these financial statements include valuing of the stock of the subsidiaries, assumptions to calculate the value of stock options, stock-based compensation expense, allowance for doubtful accounts, deferred tax asset valuation allowance, patents, minority-interest Common Stock and useful lives for depreciable and amortizable assets. Actual results could differ from those estimates.

**Cash and Cash Equivalents** For purposes relating to the statement of cash flows, the Company considers all liquid debt instruments purchased with a maturity of three months or less to be cash equivalents.

**Credit Risk** The Company extends credit to its customers in the normal course of business and generally does not require collateral or other security. The Company performs ongoing credit evaluations of its customers' financial condition and historically has not incurred significant credit losses.

**Concentration of Credit Risk** The Company maintains checking accounts for Arrowhead and separate accounts for each subsidiary at either of four financial institutions. These accounts are insured by the Federal Deposit Insurance Corporation ( FDIC ) for up to \$250,000 as of June 30, 2009. The Company has three wealth management accounts at one financial institution that invests in higher yield money market accounts and in government securities. At June 30, 2009, the Company had uninsured cash deposits totaling \$1,911,058. The Company has not experienced any losses in such accounts.

**Property and Equipment** Property and equipment are recorded at cost. Depreciation of property and equipment is recorded on the straight-line method over the respective useful lives of the assets ranging from 3 to 7 years. Leasehold improvements are amortized over the initial term of the leases.

With the completion of the Cerulean license and the termination of the Calando facility lease, Calando's laboratory and related equipment was donated to Caltech. The equipment had a historical cost of \$1,244,774 and accumulated depreciation of \$1,111,568. Calando recognized a loss equal to the net book value of the equipment in the amount of \$133,206 in the current quarter.

**Intellectual Property** At June 30, 2009, intellectual property consisted of patents and patent applications licensed or purchased in the gross amount of \$792,434. A portion of the consideration paid for Calando (formerly Insert) has been allocated to the patents held by Calando. The Calando patents, in the gross amount of \$3,301,190, are being amortized over the life of these patents. The accumulated amortization of patents totaled \$1,652,258 at June 30, 2009. Patents are being amortized over 3 years to 20 years unless a patent is determined to have no foreseeable commercial value and is written down to \$1. The weighted average original amortization period is 13 years. The weighted average remaining

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amortization period is 9.4 years.

**Equity Investments** Arrowhead has a non-controlling equity investment in Nanotope, a privately held biotechnology company, which is classified as an other asset. This investment is carried at cost less Arrowhead's proportionate share of Nanotope's operating loss for the period since investment because Arrowhead owns more than 20% of the voting equity and has the ability to



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exercise significant influence over this company. This investment is inherently high risk as the markets for technologies or products manufactured by this company were in an early stage at the time of the investment by Arrowhead and such markets may never be significant. Arrowhead could lose its entire investment in Nanotope. Arrowhead monitors this investment for impairment and makes appropriate reductions in carrying values when necessary.

**Minority Equity Investments** The Company's minority equity investment in LBS, a privately held biotechnology company, is classified as an other asset. This investment is carried at cost because Arrowhead owns less than 20% of the voting equity and only has the ability to exercise nominal, not significant, influence over this company. This investment is inherently high risk as the market for technologies or products manufactured by this company were in an early stage at the time of the investment by Arrowhead and such markets may never be significant. Arrowhead could lose its entire investment in some or all of this company. Arrowhead monitors these investments for impairment and makes appropriate reductions in carrying values when necessary.

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

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

When Insert Therapeutics raised \$10.1 million in October of 2006, the Company participated by investing \$5.0 million in the offering. In comparison, the value of the Company's equity in Insert increased by \$7,401,394. Consistent with the guidance found in Staff Accounting Bulletin Topic 5H, the difference between the amount invested by the Company and the increase in Company's equity value in the subsidiary or \$2,401,394 was recorded as an increase in Arrowhead's proportionate share of the subsidiary's equity and is shown as an increase in the Company's Additional Paid in Capital. An identical calculation was made for the conversion of \$2,120,250 of third party Calando debt into Calando Series A Preferred Stock in June 2009. (See Note 4 Investment in Subsidiaries). A similar calculation was made for the Unidym \$10.0 million offering in the fall of 2007. The Company contributed \$3.0 million but the value of its interest in the equity of Unidym increased by \$4,720,962. The \$1,720,962 difference was recorded as an increase in Arrowhead's proportionate share of the subsidiary's equity and is shown as an increase in the Company's Additional Paid in Capital.

**Revenue Recognition** The Company follows the guidance of the Securities and Exchange Commission's (SEC) Staff Accounting Bulletin 104 (SAB No. 104) for revenue recognition. Revenue from product sales is recognized when the related goods are shipped and all significant obligations of the Company have been satisfied. The Company recognizes license fee revenue on a straight-line basis over the term of the license, if for a finite life or term. Development fees, milestone fees, collaboration fees and grant revenues are recognized upon the completion and payment of services or achievement of the mutually agreed upon milestones.

**Cost of Goods Sold** Unidym produces nanotubes for the primary purpose of using them in research and development activities, therefore the nanotubes produced are not capitalized as inventory, nor is a cost of goods sold calculated, even though some nanotubes are eventually sold to third parties.

**Research and Development** Costs and expenses that can be clearly identified as research and development are charged to expense as incurred in accordance with FASB statement No. 2, Accounting for Research and Development Costs.

The \$1,661,000 estimated fair value of Arrowhead stock issued to purchase Unidym shares from minority stockholders of Unidym increases Arrowhead's investment in the subsidiary, but does not result in any increase in Unidym's asset or capital accounts. Such additional investments by Arrowhead, that do not result in additional assets or capital at the subsidiary level, are expensed in consolidation as purchased in-process research and development in accordance with FIN 4.

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

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Recently Issued Accounting Standards Management does not believe that any recently issued, but not yet effective, accounting standards, if currently adopted, would have a material effect on the accompanying financial statements.

### **NOTE 2. BASIS OF CONSOLIDATION**

The consolidated financial statements for the three months and nine months ended June 30, 2009 and 2008 respectively, include the accounts of Arrowhead and its subsidiaries. All significant intercompany accounts and transactions are eliminated in consolidation and minority interests are accounted for in the consolidated statements of operations and the balance sheets.

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**NOTE 3. ALLOWANCE FOR DOUBTFUL ACCOUNTS**

The Company accrues an allowance for doubtful accounts based on estimates of uncollectible revenues by analyzing historical collections, accounts receivable aging and other factors. Accounts receivable are written off when all collection attempts have failed. The allowance for doubtful accounts applicable to Unidym as of June 30, 2009, and September 30, 2008 is \$100,591 and \$116,031, respectively.

**NOTE 4. INVESTMENT IN SUBSIDIARIES**

*Unidym, Inc. (formerly NanoPolaris, Inc.)*

On April 4, 2005, Arrowhead founded NanoPolaris, Inc. ( NanoPolaris ) as a wholly-owned subsidiary of Arrowhead. NanoPolaris was initially capitalized with \$1,000.

On June 13, 2006, NanoPolaris acquired substantially all of the net assets and the name Unidym from Unidym's founding scientist. Unidym was a developer of carbon nanotube-based materials for electronics applications. The net assets acquired included Unidym's intellectual property, prototypes and equipment, for a purchase price consisting of \$25,000 in cash, the assumption of \$75,000 of liabilities and shares of NanoPolaris common stock, with an estimated value of \$154,350. At the time of the purchase, the shares issued for the purchase represented 11.9% (10% on a fully diluted basis) of NanoPolaris' outstanding voting stock. Concurrently with the purchase, Arrowhead agreed to provide up to \$4 million in additional capital contributions over the next two years. In August 2006, NanoPolaris changed its name to Unidym, Inc.

On April 20, 2007, a wholly-owned subsidiary of Unidym merged with CNI, a Texas-based company involved in the development, manufacture and marketing of CNTs (the CNI Merger ). In connection with the CNI Merger, Arrowhead agreed to accelerate the \$4,000,000 capital contribution to Unidym and made payment on April 23, 2007. In aggregate consideration for the acceleration of the additional capital to Unidym and the transfer from Arrowhead to Unidym of rights and obligations under two sponsored research agreements, Unidym issued 448,000 shares of Unidym common stock to Arrowhead.

Prior to the CNI Merger, certain shareholders of CNI assumed all of CNI's outstanding debt, a total of \$5.4 million, in exchange for 1,080,000 shares of Series E Preferred Stock of CNI. On the date of the CNI Merger, Arrowhead purchased the Series E Preferred Stock in exchange for 1,431,222 shares of Arrowhead Common Stock with an estimated fair market value of \$5.4 million. The CNI Series E Preferred Stock was exchanged in the merger for 2,784,252 shares of newly authorized Unidym Series B Preferred Stock. The existing 2,889,000 shares of Unidym Series A Preferred Stock owned by Arrowhead were exchanged for 2,889,000 shares of Unidym Series B Preferred Stock.

In exchange for all the outstanding shares of CNI common stock, Unidym issued 5,000,000 shares of newly authorized Unidym Series A Preferred Stock with an estimated total value of \$4.2 million. The Series A Preferred Stock is convertible into 8,400,482 shares of Unidym common stock under certain conditions. Unidym also assumed CNI's 2007 Restricted Stock Unit Plan subject to which 1,104,010 shares of Unidym common stock are issuable on the later of June 30, 2008, or an initial public offering by Unidym. Unidym also assumed a warrant to purchase 64,000 shares of Unidym common stock.

The consolidated statement of operations includes the results of the merged companies since April 21, 2007.

In December 2007, Unidym completed a private financing with strategic and financial investors, pursuant to which Unidym issued and sold an aggregate of 5,764,778 shares of its Series C Preferred Stock for \$1.80 per share. The private placement generated net cash proceeds of \$10,013,897, including \$3,000,000 invested by Arrowhead.

On April 23, 2008, the Company entered into a stock purchase agreement whereby the Company purchased from a Unidym stockholder and director 550,000 shares of Unidym common stock in exchange for \$350,000 in cash and restricted Arrowhead Common Stock valued at \$200,000. As part of the agreement, the director resigned from his seat on the Unidym board and the Chief Executive Officer of the Company was appointed to the Unidym board.

On June 12, 2008 and June 16, 2008, Unidym entered into subscription agreements with Entegris, Inc. and Arrowhead Research Corporation, respectively, pursuant to which Unidym issued and sold an aggregate of 2,222,222 shares of its Series C Preferred Stock for aggregate cash proceeds of \$4,000,000 in a private financing transaction. Entegris' investment was made in connection with its expanded customer relationship with Unidym for CNTs. The Company purchased 1,111,111 shares of Series C Preferred Stock for a purchase price of \$2,000,000.

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On November 13, 2008, Unidym entered into a subscription agreement with Tokyo Electron Ventures ( TEL Ventures ), pursuant to which Unidym sold 1,111,111 shares of newly authorized Series C-1 Preferred Stock for cash proceeds of \$2 million in a private financing transaction. Shares of Series C-1 carry the same rights and preferences as the existing Series C Preferred Stock, except that the Series C-1 are senior to the Series C and all other outstanding stock of Unidym, and the Series C-1 have a \$2.16 per share liquidation preference. In addition, Series C-1 shares are convertible into the security issued in Unidym s next round of

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financing. In connection with the investment, TEL Ventures received two put options that obligated Unidym to repurchase TEL Ventures Series C-1 Stock in the event Unidym did not achieve certain cash flow requirements and enter into joint development agreement with TEL Ventures. The contingent buy back obligations were secured by certain Unidym intellectual property assets. On June 25, 2009, Unidym and TEL Ventures entered into an IP Transfer and Waiver Agreement whereby the cash flow requirement was reduced and the put options were postponed and modified in exchange for certain rights to Unidym's technology and a future royalty on product sales, described in more detail below. In addition, also on June 25, 2009, Arrowhead acquired most of TEL Ventures equity position in Unidym, consisting of 1,111,111 shares of Series C Stock and 833,333 shares of Series C-1 Stock. On July 31, 2009, the cash flow requirement was met and the put rights were permanently waived.

On June 11, 2009, the Company completed a stock exchange with certain holders of Unidym's Series A Preferred Stock. Each share of Unidym Series A Preferred Stock is convertible into 1.68 shares of Unidym common stock. Under the agreement, Arrowhead exchanged an aggregate of 1,324,625 restricted shares of Arrowhead Common Stock for an aggregate of 1,324,625 shares of Unidym Series A Preferred Stock with the holders.

In a series of transactions beginning on March 30, 2009 through June 30, 2009, Arrowhead purchased 1,069,446 shares of newly issued Series C-1 preferred stock through cash investments and conversion of bridge loans totaling \$1.9 million. The newly issued Series C-1 shares purchased by Arrowhead did not include any of the put options that are specific to the TEL Ventures Series C-1 shares.

On June 25, 2009, Unidym and TEL Ventures entered into an IP Transfer and Waiver Agreement (the "Waiver Agreement"). Pursuant to the Waiver Agreement, Unidym and TEL Ventures became co-owners of certain patents and patent applications owned by Unidym and related to equipment used to deposit inks in liquid crystal displays (LCD) or solar cells. Additionally, Unidym granted to TEL Ventures a nonexclusive license to certain intellectual property owned by Unidym related to production of inks and films in the fields of LCD and solar, however, the rights under the license cannot be exercised except in certain conditions such as Unidym's insolvency or cessation of business. If Unidym achieves certain sales milestones or is acquired by a well capitalized chemical or similar company, the license would be terminated. For a period of ten years, TEL Ventures has the exclusive right to develop certain equipment with Unidym, and TEL Ventures and Unidym agreed to negotiate in good faith through September 30, 2009 a joint development program to develop the equipment. Lastly, Unidym will pay TEL Ventures a 2% royalty on sales of products for LCD and solar applications, regardless of whether the products are produced with TEL equipment. In exchange for the above mentioned rights, Unidym and TEL Ventures agreed to postpone and modify certain put rights granted to TEL Ventures pursuant to its investment in Unidym in November 2008. The exercise period of each put right was postponed from the month of July 2009 to the month of August 2009. In addition, the cash flow required pursuant to the subscription agreement was reduced from \$7 million to \$1.5 million from the sale of Series C-1 Preferred Stock during the period from April 23, 2009 to July 31, 2009. Unidym met the cash flow requirement on July 31, 2009, and TEL Ventures's put rights were permanently waived pursuant to the Waiver Agreement.

As of June 30, 2009, Arrowhead owned 67% of the outstanding stock of Unidym and 46% on a fully diluted basis.

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

On April 17, 2008, Calando merged with and into Insert, with Insert as the surviving company (the "Calando Merger"). Following the common-control merger, Insert changed its name to Calando. Insert and Calando effectuated the Calando Merger with and into Insert pursuant to the Agreement and Plan of Reorganization dated January 14, 2008 (the "Calando Merger Agreement"). At the time of the Calando Merger, Arrowhead had a series of 6% simple-interest working capital loans outstanding to Insert totaling \$1.6 million. Arrowhead also had a series of 6% simple-interest working capital loans outstanding to Calando totaling \$4,450,000. As part of the Calando Merger, an Agreement to Provide Additional Capital, dated as of March 30, 2006, between Calando and the Company was amended and terminated to accelerate the payment of the remaining \$6,000,000 payable there under, against receipt of the repayment of the principal and interest on all loans extended by the Company to either Insert or Calando (\$6,187,663 principal and interest as of the date of the merger).

Among other things, the Calando Merger was conditioned upon the recapitalization of Insert and Calando to eliminate the preferred stock of each company. In the Insert recapitalization, immediately before the effective time of the Calando Merger, each share of Insert Series B Preferred Stock, Series C Preferred Stock and Series C-2 Preferred Stock was converted into one share of common stock, par value \$0.0001 per share, of Insert (the "Insert Common Stock"). All warrants outstanding for the purchase of Insert Series D Preferred Stock became exercisable for a like number of shares of Insert Common Stock. In the Calando recapitalization, immediately before the effective time of the Calando Merger, each share of Calando Series A Preferred Stock was converted into one share of Calando common stock, par value \$0.0001 per share (the "Calando Common Stock").

At the time of the Calando Merger, each issued and outstanding share of Calando Common Stock was canceled and automatically converted into the right to receive shares of Insert Common Stock based on the relative enterprise valuation of Insert to Calando of 1 to 1.5, or a Calando Merger share exchange ratio of 5.974126 shares of Insert Common Stock issued for each share of Calando Common Stock. Outstanding options to acquire Calando Common Stock were converted into an option to acquire approximately 5.974126 shares of Insert Common Stock.



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On November 26, 2008, Calando entered into Unsecured Convertible Promissory Note Agreements ( Notes ) for \$2.5 million with accredited investors plus Arrowhead which invested \$200,000 in the Note offering. Arrowhead invested an additional \$500,000 on February 23, 2009. The Notes mature on November 26, 2010 and bear 10% annual interest. Unpaid principal of the Notes and accrued but unpaid interest thereon is convertible into common stock of Calando at a conversion price of \$0.576647 per share (subject to adjustment) at any time in the sole discretion of the holder. In the event that Calando achieves a liquidation event as defined in the Notes, each holder has the option to exchange the Notes for two times the then outstanding principal amount owed under the Notes plus accrued and unpaid interest thereon ( Redemption Amount ) or convert the outstanding principal and accrued and unpaid interest thereon into Calando common stock at the Conversion Price. At any time a Note is outstanding, Calando may redeem such Note for the Redemption Amount. To facilitate the above investment in Calando, Arrowhead subordinated a series of 6% simple interest working capital loans and advances to Calando outstanding at the time the Notes were issued totaling approximately \$5.3 million of principal plus interest.

Effective June 23, 2009, to facilitate licensing transactions with a third party, holders (including the Company) of an aggregate of \$2.9 million of the Notes, converted the principal and accrued interest into a newly authorized Calando Series A Preferred Stock. The non-voting Series A Stock has a liquidation preference of 2.5 times the Series A Original Issue Price of \$1,000 per share and is convertible into common stock at a conversion price of \$0.57 per share. The Company converted all of its Notes representing a principal balance of \$800,000 plus interest into approximately 830 shares of Series A Stock. One Note for \$500,000 plus interest remains outstanding.

As of June 30, 2009, Arrowhead had a series of 6% simple-interest working capital loans and advances outstanding to Calando totaling \$5,729,689 plus accrued interest of \$255,833 payable upon demand, of which approximately \$5.3 million is subordinate to the Unsecured Convertible Promissory Note Agreements described previously.

As June 30, 2009, the Company owns 67.8% of the outstanding shares of the combined company and 63.6% on a fully diluted basis.

*Ensysce BioSciences Inc.*

On March 14, 2008, Unidym sub-licensed certain of its intellectual property to an affiliate company, Ensysce Biosystems, Inc., which is focused on research into the medical therapeutic applications of CNTs. Ensysce was both funded and effectively controlled by a related party to Unidym who also serves as a director of Unidym. Terms of the licensing arrangement between Unidym and Ensysce included a \$25,000 up-front sub-licensing fee, ongoing royalties and an initial 50% equity position for Unidym in Ensysce. On November 25, 2008, Unidym sold its 50% equity position to the controlling shareholder for \$700,000 in cash. The Company recognized a \$700,000 gain on the sale of its equity interest in Ensysce during the first quarter of fiscal 2009 ended December 31, 2008.

*Tego BioSciences Corporation*

On April 20, 2007, Tego BioSciences Corporation, a newly formed, 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 for \$1,000. On July 3, 2007, Arrowhead capitalized Tego with a purchase of 5,000,000 shares of Tego Series A-1 Preferred Stock for \$100,000. On October 25, 2007, Arrowhead provided \$2.4 million in additional capital to Tego in exchange for 15,000,000 shares of Series A-2 Preferred Stock. A portion of the additional capital was used to develop and commercialize therapeutics and other products based on the antioxidant properties of modified fullerenes.

On November 21, 2008, Tego repurchased from the Company 5,000,000 shares of Tego Series A-1 Preferred Stock for \$1.7 million. The repurchase was effected to redirect funds from Tego to the Company in connection with Tego's revised business plan to focus on the out-license of its technology and to reduce its internal development activities. After the buyback, Arrowhead continues to own 100% of the outstanding stock of Tego and 85% of Tego's stock on a fully diluted basis.

As of June 30, 2009, the Company has incurred approximately \$883,000 of expenses related to Tego since its inception.

*Agonn Systems Inc.*

On May 1, 2008, the Company formed a wholly-owned subsidiary, Agonn Systems, Inc. to explore strategic opportunities in energy storage technologies and to develop prototypes. As of June 30, 2009, the Company has incurred approximately \$618,000 of expenses related to Agonn since its inception.





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*Nanotope, Inc.*

Through the acquisition of Masa Energy LLC, a Delaware limited liability company for \$250,000 of cash and \$310,000 of Arrowhead Common Stock, the Company acquired a 5.78% minority position in Nanotope and a 6.13% minority position in LBS. Masa Energy LLC has no other assets or operations.

In July and September 2008, the Company acquired shares of Series B Preferred Stock of Nanotope for an aggregate investment of \$2 million, bringing the Company's ownership to approximately 22% of Nanotope.

Nanotope is developing advanced nanomaterials for the treatment of spinal cord injuries and wound healing. Nanotope is based on technology developed in the laboratories of Dr. Samuel Stupp at Northwestern University. Nanotope's lead product is a compound that, when injected or applied at a wound site, self-assembles to form a scaffold of nanofibers on which cells can grow and differentiate to heal the wound. The Company has no obligation for future funding of Nanotope.

During the first nine months of fiscal 2009, Nanotope did not generate revenues. Operating expenses for the three month and nine month periods ended June 30, 2009 total approximately \$219,000 and \$493,000, respectively. Nanotope's net loss for the three month and nine month periods ended June 30, 2009 was \$218,000 and \$419,000, respectively.

*Leonardo Biosystems, Inc.*

Through the acquisition of Masa Energy LLC, Arrowhead acquired a 6.13% ownership interest in LBS. LBS is developing a drug-delivery platform technology based on novel methods of designing spheroid porous silicon microparticles that selectively accumulate in tumor vasculature. The microparticles are designed to be loaded with drug associated nanoparticles. LBS is based on technology developed in the University of Texas laboratory of Dr. Mauro Ferrari. The Company has no obligation for future funding of LBS.

**NOTE 5. DISCONTINUED OPERATIONS AONEX**

On May 5, 2008, Aonex entered into an Agreement and Plan of Merger (the "Aonex Merger Agreement") by and among AmberWave Systems Corporation, a Delaware corporation in the business of research, development and licensing of advanced technologies for semiconductor manufacturing ("Amberwave") and Aonex Acquisition Corporation, a California corporation and wholly-owned subsidiary of Amberwave formed for the purpose of acquiring Aonex's business ("Acquiror"). On May 6, 2008, the merger was consummated and the outstanding Company loans to Aonex of \$1,298,000 were converted to equity.

At the time of the Aonex Merger, all of the issued and outstanding shares of Aonex capital stock automatically converted into the right to receive an aggregate amount equal to (a) \$450,000 minus (b) the sum of the of Aonex transaction expenses and \$15,625. In addition, the stockholders of Aonex are entitled to receive future payments as follows:

- (i) Upon Acquiror's completion of a successful laminate substrate production at its facilities, Acquiror will pay the stockholders of Aonex capital stock ("Aonex Stockholders") an additional amount equal to \$500,000;
- (ii) For each agreement the Acquiror enters into with a customer during the 24-month period following the closing of the Merger (each a "Customer Agreement"), the Acquiror will pay Aonex Stockholders an additional amount equal to \$500,000 (with the aggregate amount not to exceed \$2 million), subject to the satisfaction of certain procedural requirements set forth in the Aonex Merger Agreement;
- (iii) During the 42-month period beginning on the closing of the Aonex Merger, the Acquiror will pay Aonex Stockholders, on a quarterly basis, the sum of: (A) 20% of the cash gross margin contribution received by the Acquiror or its subsidiaries from its customers during such period for the sale of specified products, services or devices employing Aonex's intellectual property assets, and (B) 35% of the revenues from the licensing or sale of Aonex's intellectual property assets received by the Acquiror from its customers during such period; provided however, that (1) the aggregate payments under this subsection do not exceed \$7 million and (2) certain procedural requirements set forth in the Aonex Merger Agreement are satisfied; and
- (iv) During the ten-year period following the Aonex Merger, the Acquiror will pay Aonex Stockholders royalty payments, payable on a quarterly basis, equal to one-half of one percent of the revenues associated with the sale of any product incorporating the Aonex's intellectual property assets for solar applications or the license of Aonex's intellectual property assets for solar applications; subject to the satisfaction of certain procedural requirements set forth in the Aonex Merger Agreement.

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Notwithstanding the above, the aggregate Earn-out Payments made by the Acquiror (other than those payments under subsection (iv) above) to Aonex Stockholders shall not exceed \$7.95 million.

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Arrowhead has preference to the first \$6,298,000 in future payments after which any additional payments will be split 64% to Arrowhead and 36% to the holders of the common stock of Aonex. As of June 30, 2009, only the initial payment due at the time of the merger had been received.

**NOTE 6. NOTES PAYABLE**

On November 26, 2008, Calando entered into Unsecured Convertible Promissory Note Agreements ( Notes ) for \$2.5 million with accredited investors, plus Arrowhead which invested \$200,000 in the Note offering. Arrowhead invested an additional \$500,000 in the same offering on February 23, 2009. The Notes mature on November 26, 2010 and bear 10% annual interest. Unpaid principal of the Notes and accrued but unpaid interest thereon is convertible into common stock of Calando at a conversion price of \$0.576647 per share (subject to adjustment) at any time in the sole discretion of the holder. In the event of a Calando Company Sale, the note holder has the option to exchange the Notes for two times the then outstanding principal amount owed under the Notes plus accrued and unpaid interest thereon or convert the outstanding principal and accrued and unpaid interest thereon into Calando common stock at the Conversion Price.

Except for one note in the principal amount of \$500,000, all notes and accrued interest were converted into Calando Series A Preferred Stock on June 23, 2009.

**NOTE 7. MEZZANINE FINANCING**

Unidym sold 1,111,111 shares of Series C-1 Preferred Stock for cash proceeds of \$2 million in a private financing transaction with TEL Ventures in November 2008. In connection with the investment, TEL Ventures was granted certain contingent rights if Unidym failed to meet a cash flow requirement of \$7 million and enter into a joint development agreement with TEL Ventures by June 30, 2009. If the contingencies were not satisfied, Unidym was obligated to repurchase the Series C-1 Stock for an aggregate purchase price of \$2,000,000 at TEL Ventures option. Unidym's contingent buy back obligations were secured by a separate security agreement between Unidym and TEL Ventures.

On June 25, 2009 the Company acquired 833,333 of TEL Ventures Series C-1 shares in exchange for restricted Common stock of the Company. This transaction permanently eliminated \$1,500,000 of the potential \$2,000,000 put option liability. With the elimination of the put option right for the \$1.5 million was recorded as a reclassification of mezzanine debt to additional paid in capital on the consolidated balance as of June 30, 2009, pursuant to Regulation S-X Rule 5-02.

Also on June 25, 2009, Arrowhead Unidym and TEL Ventures entered into an IP Transfer and Waiver Agreement whereby TEL's remaining put rights totaling \$500,000 were postponed and modified and the cash flow requirement was reduced from \$7 million to \$1.5 million. On July 31, 2009, Unidym met the reduced cash flow requirement and the remaining buy back obligation of \$500,000 was permanently waived.

*See Note 4, Investments in Subsidiaries and Note 16, Subsequent Events.*

**NOTE 8. STOCKHOLDERS EQUITY**

The number of authorized shares of stock of the Company at June 30, 2009, is a total of 75,000,000 shares, consisting of 70,000,000 authorized shares of Common Stock, par value \$0.001, and 5,000,000 authorized shares of Preferred Stock.

As of June 30, 2009, total shares outstanding consisted of 46,203,586 shares of Common Stock. At June 30, 2009, 1,529,000 shares and 5,738,310 shares were reserved for issuance upon exercise of options granted under Arrowhead's 2000 Stock Option Plan and 2004 Equity Incentive Plan, respectively. On December 3, 2007, an inducement grant of options to purchase 2,000,000 shares of Common Stock was made outside of Arrowhead's equity incentive plans to the Company's newly hired CEO. The terms of the inducement option are substantially similar to the terms of the Company's 2004 Equity Incentive Plan. Through June 30, 2009, options to purchase 1,529,000 shares were outstanding under the 2000 Stock Option Plan and options to purchase 3,354,588 shares were outstanding under the 2004 Equity Incentive Plan.

On January 24, 2006, the Company completed a private placement of 5,590,000 shares of restricted Common Stock at \$3.50 per share that generated \$19.6 million in total proceeds. The purchasers received Warrants, exercisable after July 25, 2006, to purchase an additional 1,397,500 shares of restricted Common Stock at \$5.04 per share. The Warrants may be called by the Company any time after July 25, 2006, if the closing price of the Company's Common Stock is \$6.50 or above for the previous 30 trading days.

On May 29, 2007, the Company completed a private placement of 2,849,466 shares of restricted Common Stock at \$5.78 per share that generated \$15.2 million in net proceeds. The purchasers received Warrants to purchase an additional 712,362 shares of Common Stock at \$7.06 per share. The Warrants may be called by the Company any time after May 29, 2008, if the closing price of the Company's Common Stock is

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\$8.47 or above for the previous 20 trading days.

In September 2008, Arrowhead completed a registered direct offering of a total of 3,863,989 units, with each unit consisting of one share of Common Stock and a Warrant to purchase one share of Common Stock. Of the 3,863,989 units sold in the offering, 3,683,660 units were sold to investors at a purchase price of \$1.80 per unit and 180,329 units were sold to three members of the Company's management at a purchase price of \$1.83 per unit. The last reported sale price of the Company's Common Stock on the

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NASDAQ Global Market on August 15, 2008, the day the offering was launched, was \$1.70. The Warrants, which represent the right to acquire a total of 3,863,989 shares of Common Stock, have an exercise price of \$2.00 per share and have a five-year term. The gross offering proceeds were approximately \$6.9 million and the net offering proceeds to the Company were approximately \$6.2 million. The offering was made directly by the Company without an underwriter or placement agent. The Company paid finders' fees of 7.5% on a portion of the gross proceeds.

The following table summarizes information about Warrants outstanding at June 30, 2009:

Exercise prices	Number of Warrants	Weighted Average Remaining Life in Years	Weighted Average Exercise Price
\$5.04	1,397,500	6.6	\$5.04
\$7.06	712,362	7.9	\$7.06
\$2.00	3,863,989	4.2	\$2.00

On January 30, 2008, Arrowhead's Form S-3 Registration Statement, originally filed on December 20, 2007 was declared effective. The prospectus allows Arrowhead to issue, from time to time in one or more offerings, shares of Common Stock and Warrants for an aggregate dollar amount of up to \$50 million of which approximately \$6.9 million was issued in the September 2008 registered direct offering described above.

It is the Company's intent to use the net proceeds from the sale of the securities and the net proceeds received upon exercise of the Warrants for general corporate purposes, which may include one or more of the following: working capital, research and clinical development activities, repayment of debt, potential future acquisitions of companies and/or technologies, and capital expenditures. *See Note 16, Subsequent Events.*

**NOTE 9. LEASES**

As of June 30, 2009, the Company leased the following facilities:

	Lab/Office Space	Monthly Rent	Lease Commencement	Lease Term
Arrowhead				
Pasadena(1)	7,388 sq ft	\$ 17,731	March 1, 2006	62 Months
New York(2)	130 sq ft	\$ 1,600	October 1, 2008	14 Months
Calando(3)	4,354 sq ft	\$ 12,173	June 1, 2009	1 Month
Unidym				
Menlo Park, CA(4)	9,255 sq ft	\$ 14,345	February 1, 2007	36 Months
Sunnyvale, CA(5)	20,500 sq ft	\$ 25,625	October 1, 2008	60 Months

- (1) Arrowhead leases corporate office space in Pasadena, which it occupied beginning March 1, 2006. The lease agreement provides Arrowhead with two months' free rent which was recorded as a deferred liability and is being amortized over the life of the lease.
- (2) As of April 1, 2009, Arrowhead closed its New York office and is seeking a subtenant.
- (3) As of July 15, 2009, Calando's lease expired and its laboratory facility was closed.
- (4) Unidym is in the process of relocating its Menlo Park, CA operations to Sunnyvale with the intent of subleasing the Menlo Park facility for the remainder of the current lease.

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(5) Unidym has relocated its Houston, TX production operations to Sunnyvale, CA. Unidym has terminated its Houston, TX lease. On April 22, 2009, Unidym entered into a lease termination agreement with the landlord for its Pasadena, Texas location. At the time of the termination, approximately 9.5 years remained on the term of the lease with the minimum estimated future payments totaling approximately \$2,139,000. Under terms of the lease termination agreement, Unidym forfeited its \$109,200 security deposit and made an additional payment to the landlord of \$14,800.

The Company has no plans to own any real estate and expects all facility leases will be operating leases.

At June 30, 2009, the future minimum commitments remaining under leases are as follows:

<b>Twelve months ending June 30</b>	<b>Facilities Leases</b>	<b>Equipment Leases</b>
2010	\$ 848,165	\$ 9,921
2011	513,725	4,215
2012	341,325	0
2013	353,625	0
2014	89,175	0
2015 and thereafter	0	0

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Facility and equipment rent expense for the three months ended June 30, 2009 and 2008 was \$400,399 and \$283,756, respectively. Facility and equipment rent expense for the nine months ended June 30, 2009 and 2008 was \$1,088,596 and \$791,634, respectively. From inception to date, rent expense has totaled \$4,066,729.

**NOTE 10. OBLIGATIONS UNDER CAPITALIZED LEASE**

At June 30, 2009, the future minimum commitments remaining under capitalized leases are as follows:

Capitalized lease payable in 13 monthly installments of \$75,343, due in July 2010, secured by equipment at Unidym.	\$ 979,470
Twelve months ending June 30, 2010	\$ 904,127
2011	75,343
Total minimum lease payments	979,470
Less interest	44,224
Present value of future minimum payments	935,246
Less current portion	860,401
Long term portion	\$ 74,845

Research and development equipment under capitalized lease was allocated a cost of \$0 at the Nanoconduction acquisition by Unidym as the equipment has no alternative use.

**NOTE 11. COMMITMENTS AND CONTINGENCIES SUBSIDIARIES AND SPONSORED RESEARCH****Subsidiaries and Investments**

As of June 30, 2009, Arrowhead held a majority of the following four subsidiaries:

Subsidiary	% Ownership <sup>1</sup>	Technology/Product Focus
Calando Pharmaceuticals, Inc.  <i>acquired June 4, 2004</i> Unidym, Inc. (formerly NanoPolaris)	67.8%	Nano-engineered RNAi therapeutics and drug delivery systems
<i>founded April 4, 2005</i> Tego Biosciences Corporation	67.0%	Commercialization of nanotube-based products for electronic applications
<i>acquired April 20, 2007</i> Agonn Systems, Inc.  <i>founded May 1, 2008</i>	100.0%  100.0%	Owner of intellectual property related to protective products based on the anti-oxidant properties of buckminsterfullerenes Formed to develop nanotechnology based energy storage solutions for hybrid electric vehicles and other large format applications

- (1) Each subsidiary has an option plan to help motivate and retain employees. Calando has 4,335,473 outstanding warrants, primarily issued in connection with a financing event that closed in October 2006. As of June 30, 2009, assuming all options in each subsidiary plan were awarded and exercised and all warrants were exercised; the Company would own approximately 62% of Calando, 46% of Unidym and

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85% of Tego. Agonn has not yet adopted an option plan and does not have any outstanding warrants.

<b>Investment</b>	<b>% Ownership</b>	<b>Technology/Product Focus</b>
Nanotope, Inc. <i>Acquired April 29, 2008</i>	22.0%	Developing nano-engineered, self-assembling, bioactive scaffolding for the treatment of spinal cord injury and peripheral artery disease
Leonardo Biosystems, Inc. <i>Acquired April 29, 2008</i>	6.1%	Developing an advanced set of nanotechnology tools to deliver anti-cancer therapeutics
	15	



**Table of Contents****Sponsored Research**

In exchange for the exclusive right to license technology developed in sponsored laboratories, Arrowhead has worked with universities in areas such as stem cell research, carbon electronics and molecular diagnostics. By funding university research, Arrowhead has the opportunity to ascertain the technical success at low research cost and, if warranted, continue cost-effective development at the university by leveraging the already existing resources available to scientists at universities, such as laboratories and equipment and a culture that encourages the exchange of ideas. If sponsored research results in technology that appears to have commercial applications, the Company can form a majority-owned subsidiary to develop the technology. Should the technology prove to be too difficult or too expensive to commercialize, Arrowhead may terminate the license agreement and return the licensed intellectual property to the university.

Sponsored research expense for the three months ended June 30, 2009 and 2008 was \$50,000 and \$142,558, respectively. Sponsored research expense for the nine months ended June 30, 2009 and 2008 was \$170,000 and \$678,531, respectively. As of June 30, 2009, there were no active sponsored research agreements at the Arrowhead level and Unidym had one agreement in place. In the future, as capital resources allow, Arrowhead may invest in nanoscience research and development at universities by entering into sponsored research agreements.

**Rice University Patents**

Unidym controls an intellectual property portfolio containing more than 200 foreign and domestic patents and patent applications, including more than 90 issued patents. The portfolio contains patent claims directed to fundamental CNT compositions of matter, as well as CNT synthesis, purification, dispersion and functionalization. Furthermore, the portfolio contains claims to the use of CNTs in many different application areas including fibers, electronics, composite materials, energy storage/generation, medical devices and drug delivery. Some patents are owned by Unidym but most are exclusively in-licensed from academic institutions, one of which is Rice University. Additionally, Unidym acquired the right to sublicense the basic patent claiming single-walled nanotube compositions of matter. Unidym also exclusively in-licenses Tego Biosciences' entire intellectual property for nontherapeutic fields of use. Unidym has opted to focus its resources on electronic applications of CNTs. Unidym has out-licensed its portfolio to Ensysce in the field of therapeutics. Unidym is currently executing a plan to encourage third parties and competitors to enter non-exclusive licenses of its intellectual property outside of its core areas. To facilitate this plan, Unidym is also making options available to acquire non-exclusive licenses at a later date.

A material portion of Unidym's intellectual property portfolio is exclusively licensed from Rice University. If the sum of Unidym's debts, liabilities and other obligations is greater than all of Unidym's assets at fair valuation or if Unidym is generally not paying its debts, liabilities and other obligations as they come due; the Rice license would terminate.

**Sponsored Research Agreement Duke University**

The terms of the current sponsored research agreement between Unidym and Duke University (Duke) are summarized in the following table:

Research Project	Period Covered	Total Estimated Project Cost	Annual Cost	Amount Paid	Prepaid Amt
				as of June 30, 2009	as of June 30, 2009
Electrical Conductivity of Carbon Nanotubes (Dr. Jie Liu)	Dec. 1, 2007 -  Nov. 30, 2010 (3 years)	\$ 574,124	\$ 191,375	\$ 216,641	\$ 0

The Duke sponsored research agreement is in the process of being renegotiated which is expected to result in the annual cost decreasing from \$191,375 to \$100,000.

**Sponsored Research Agreement University of Florida**

The terms of the sponsored research agreement with the University of Florida (UF) are summarized in the following table:

Research Project	Annual Cost
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		<b>Period Covered</b>	<b>Total Estimated Project Cost</b>		<b>Amount Paid as of June 30, 2009</b>	<b>Prepaid Amt as of June 30, 2009</b>
Development of flexible electronic devices transistors (Dr. Andrew Rinzler)	Thin film	Jul. 1, 2006 -				
		Jun. 30, 2008 (2 years)	\$ 647,533	\$ 323,767	\$ 647,533	\$ 0

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In connection with the CNI Merger, the rights and obligations under the sponsored research agreement with UF were transferred to Unidym. All payments under this agreement had been made and the agreement had been concluded.

In July of 2008, Calando made a contribution of \$50,000 to Caltech for laboratory research in the field of synthetic polymers for use primarily in drug delivery applications. Caltech has granted Calando an exclusive license to the patent rights in the field of synthetic polymers for drug delivery.

***Employment Agreements***

On May 24, 2007, the Company entered into a Severance Agreement with each of R. Bruce Stewart, the Company's Chairman and then Chief Executive Officer, and Joseph T. Kingsley, the Company's then Interim President and Chief Financial Officer, to provide for payments to the officers in the event of their retirement or the termination of their employment. The agreements provide that the executives will be entitled to receive severance payments and payments for any accrued and unused vacation time in the event that (i) the executive dies or voluntarily retires from the Company, (ii) the executive voluntarily terminates his employment other than for cause or (iii) the Company terminates the executive's employment other than for cause (each, a Termination Event). Upon the occurrence of a Termination Event, Mr. Stewart is entitled to receive as severance, during each of the first three years following the Termination Event, payments equal to his highest annual salary while employed by the Company, payable in equal monthly installments. Upon the occurrence of a Termination Event, Mr. Kingsley was entitled to receive as severance, during the first year following the Termination Event, payments equal, in the aggregate, to 100% of his highest annual salary while employed by the Company, payable in equal monthly installments, which payments would be reduced by any payments received by Mr. Kingsley or his estate from the Company's Long Term Disability Plan. Each agreement also provides that, if any payment to the executive is subject to excise tax under Section 4999 of the Internal Revenue Code of 1986, as amended (the Code), the Company will pay to the executive an amount sufficient, on an after-tax basis, to put the executive in the same position he would have been in if the excise tax was not imposed. The timing of payments under the agreements is also subject to adjustment to avoid any adverse tax treatment under Section 409A of the Code.

Mr. Kingsley stepped down from his positions as Interim President on December 1, 2007 and as Chief Financial Officer of the Company on January 14, 2008 and remained an employee of the Company. On March 10, 2008, the Company entered into an Employment Agreement with Mr. Kingsley. Under the Agreement, Mr. Kingsley served as Assistant to the President from January 14, 2008 through January 13, 2009 and was paid his previous base salary. Mr. Kingsley's previously granted stock options ceased vesting as of January 14, 2008 and all remaining unvested stock options were cancelled. The exercise period for Mr. Kingsley's vested stock options was extended by the Employment Agreement from 90 days after retirement to one year after he terminates employment with the Company. As a condition to the Employment Agreement, the Severance Agreement between the Company and Mr. Kingsley, entered into on May 24, 2007 was terminated in its entirety.

Effective May 12, 2009, Mr. Stewart and the Company agreed to amend the Severance Agreement for Mr. Stewart such that, in the event his employment with the Company terminates, he would receive a lump sum payment equal to one month's salary. This change resulted in a reduction in the accrued severance liability on the Company's balance sheet from \$750,000 as of March 31, 2009 to approximately \$24,000 for the period ending June 30, 2009.

On June 11, 2008, the Company, entered into an Employment Agreement and a Stock Option Agreement with Dr. Christopher Anzalone, the Company's Chief Executive Officer and President as well as a Director of the Company. Dr. Anzalone commenced employment with the Company on December 1, 2007. Under the agreement, Dr. Anzalone is paid an annual base salary of \$400,000 and is eligible to receive bonuses based on the performance of the Company and individual performance objectives. The Company provides supplemental life insurance to bring his life insurance benefit up to \$2,000,000. If the Company terminates Dr. Anzalone's employment without cause, the Company agreed to pay Dr. Anzalone his base salary and benefits for twelve months.

Effective May 12, 2009, the Company entered into an Amendment to the Employment Agreement with Dr. Anzalone, the Company's Chief Executive Officer and President. The Employment Agreement, dated June 11, 2008, previous to the amendment, provided for severance equal to one year's salary based on his highest annual salary while employed by the Company in the event that Dr. Anzalone was terminated by the Company without cause or if he resigned for good reason. The amendment reduces the payments from one year to a single lump sum amount equivalent to one (1) month of Dr. Anzalone's highest monthly salary while at Arrowhead Research Corporation.

**NOTE 12. STOCK OPTIONS**

Stock-Based Compensation Arrowhead has two plans that provide for equity-based compensation. Under the 2000 Stock Option Plan, 1,529,000 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 5,738,310 shares for the grant of stock options, stock appreciation rights, restricted stock awards and performance unit/share awards by the Board of Directors



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to employees, consultants and others expected to provide significant services to Arrowhead. As of June 30, 2009, there were options granted and outstanding to purchase 1,529,000 and 3,354,588 shares of common stock under the 2000 Stock Option Plan and the 2004 Equity Incentive Plan, respectively. During the three and nine month periods ended June 30, 2009, 0 and 360,000 options were granted under the 2004 Equity Incentive Plan, respectively.

On December 3, 2007, an inducement grant of an option to purchase two million shares of Common Stock was made outside of Arrowhead's equity incentive plans to Dr. Christopher Anzalone, the Company's new Chief Executive Officer. The option vests over 48 months with the first 250,000 shares vesting six months from the date of original grant and 41,667 shares vesting on the first of each month in 42 successive equal installments thereafter. The option price is \$3.92 per share, the closing price of Arrowhead's stock on the date of grant. The estimated fair value at the date of grant was \$4,692,207.

The following tables summarize information about stock options:

	Number of Options Outstanding	Weighted- Average Exercise Price Per Share
Balance at May 7, 2003		
Granted	150,000	0.20
Canceled		
Exercised		
Balance at September 30, 2003	150,000	0.20
Granted	1,570,000	1.00
Canceled	(25,000)	1.00
Exercised	(156,000)	0.23
Balance at September 30, 2004	1,539,000	1.00
Granted	2,095,000	2.53
Canceled	(170,000)	1.00
Exercised	(25,000)	1.00
Balance at September 30, 2005	3,439,000	1.93
Granted	2,235,000	4.79
Canceled	(1,161,167)	4.27
Exercised	(115,794)	2.95
Balance at September 30, 2006	4,397,039	2.74
Granted	945,000	4.97
Canceled	(160,952)	5.32
Exercised	(186,164)	2.34
Balance At September 30, 2007	4,994,923	3.07
Granted	3,445,000	3.49
Canceled	(326,934)	3.74
Exercised	(105,357)	2.75
Balance At September 30, 2008	8,007,632	3.24
Granted	240,000	1.11
Canceled		
Exercised		
Balance At December 31, 2008	8,247,632	3.18

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Granted	120,000	0.49
Canceled	(539,044)	4.53
Exercised		
Balance At March 31, 2009	7,828,588	3.05
Granted		
Canceled	(945,000)	3.86
Exercised		
Balance At June 30, 2009	6,883,588	2.94
Exercisable At June 30, 2009	4,197,338	2.80

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Exercise Prices	Number of Options	Weighted Average Remaining Life in Years	Weighted Average Exercise Price
\$1.00 6.89	6,883,588	7.6	\$ 2.94

At June 30, 2009, there were 2,383,722 options available for future grants under Arrowhead's 2004 Equity Incentive Plan. The intrinsic value of the options exercised during the three months ended June 30, 2009 and 2008 was \$0 and \$0 respectively, as none were exercised. The intrinsic value of the options exercised during the nine months ended June 30, 2009 and 2008 was approximately \$0 and \$69,000, respectively.

The fair value of the options granted by Arrowhead for the three months ended June 30, 2009 and 2008 is estimated at \$0 and \$1,505,389, respectively. The fair value of the options granted by Arrowhead for the nine months ended June 30, 2009 and 2008 is estimated at \$230,000 and \$7,475,000, respectively.

Subsequent to June 30, 2009, directors, officers and employees of the Company agreed to terminate options to purchase 4,005,000 shares with exercise prices ranging from \$2.52 to \$6.83 in order to provide sufficient shares for issuance in a financing transaction. The reserve for the 2004 Equity Incentive Plan was reduced to the options remaining outstanding until such time as sufficient authorized shares are available to restore the reserve. *See Note 16, Subsequent Events.*

Options granted by Unidym, Calando, Tego or Agonn for the three months ended June 30, 2009 had a combined estimated fair value of \$95,000. For the nine months ended June 30, 2009, the combined estimated fair value of options granted was \$290,000. As of June 30, 2009, the estimated fair value of the unvested options for Arrowhead is \$4,716,000 with a weighted average remaining amortization period of 2.5 years.

As of June 30, 2009, the estimated aggregate fair value of the unvested options for Unidym, Calando and Tego is \$656,000 with a weighted average remaining amortization period of 2.4 years.

The fair value of options is estimated at the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions: dividend yield of 0%, expected volatility of 49% to 81% (0% to 81% for Subsidiaries), risk-free interest rate of 2.34% to 5.10%, and expected life of five to six years. There were no options granted by Arrowhead during the three months ended June 30, 2009. The weighted-average fair value of options granted by Arrowhead for the three months ended June 30, 2008 is estimated at \$1.86 and the weighted-average exercise price is estimated at \$2.61 for that same period.

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. In addition, option valuation models require the input of highly subjective assumptions, including the expected stock price volatility. Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its employee stock options.

**NOTE 13. INCOME TAXES**

The Company utilizes SFAS No. 109, *Accounting for Income Taxes*, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements or tax returns.

Under this method, deferred income taxes are recognized for the tax consequences in future years of differences between the tax bases of assets and liabilities and their financial reporting amounts at each year-end based on enacted tax laws and statutory tax rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established, when necessary, to reduce deferred tax assets to the amount expected to be realized. The provision for income taxes represents the tax payable for the period and the change during the period in deferred tax assets and liabilities.

For the three and nine month periods ended June 30, 2009, the Company had consolidated losses of \$2,529,000 and \$15,848,000, respectively. For the three and nine month periods ended June 30, 2008, the Company had consolidated losses of \$7,502,000 and \$18,431,000, respectively. The 2009 losses result in a deferred income tax benefit of approximately \$999,000 and \$6,260,000 for the three and nine months ended June 30, 2009. For the three and nine month periods ended June 30, 2008, the Company's losses resulted in a deferred income tax benefit of approximately \$2,963,000 and \$7,280,000, respectively. The deferred income tax benefits are offset by increases in the valuation allowance for the same amount for Arrowhead. Management has chosen to take a 100% valuation allowance against the tax benefit until such time as management believes that its projections of future profits, as well as expected future tax rates, make the realization of these deferred tax assets more-likely-than-not. Significant judgment is required in the evaluation of deferred tax benefits, and differences in future results from our estimates could result in material differences in the realization of these assets.





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**NOTE 14. SEGMENT AND GEOGRAPHIC REPORTING**

The Company accounts for segments and geographic product and licensing revenues in accordance with SFAS No. 131, Disclosure about Segments of an Enterprise and Related Information. The Company operates in a single segment, nanotechnology.

Grant and collaborations agreements are not considered to be product or licensing revenue, as the Plan of Operations for the Company is to sell products and/or license technology. The grant revenue is a way to fund and to offset development costs.

**NOTE 15. RELATED PARTY TRANSACTIONS**

During the three months and nine months ended June 30, 2009 the Company's majority-owned subsidiary, Unidym had product sales of \$0 and \$47,218, respectively, to one of its stockholders, Sumitomo. During the same three month and nine month periods, in the prior year, sales to Sumitomo totaled \$38,999 and \$160,944, respectively.

On July 31, 2009, Unidym terminated its contract with Sumitomo as its major product distributor in Japan.

During the three months and nine months ended June 30, 2009 the Company's majority-owned subsidiary Calando paid \$0 and \$30,000, respectively, in consulting fees to Dr. Mark Davis at Caltech. During the same three month and nine month periods, in the prior year, payments were made to Dr. Davis in the amounts of \$35,000 and \$125,000, respectively. Dr. Davis was a director and consultant for Calando.

During the nine months ended June 30, 2009, Calando raised \$2.5 million through the sale of senior unsecured convertible promissory notes (New Notes), to accredited investors, plus \$700,000 from Arrowhead. Dr. Anzalone, Arrowhead's CEO personally participated in the offering by buying \$100,000 of the New Notes.

**NOTE 16. SUBSEQUENT EVENTS**

On July 17, 2009 and August 6, 2009, the Company sold an aggregate of 9.2 million units in a private placement transaction with institutional and accredited investors. Each Unit consisted of one share of Company common stock, \$0.001 par value per share, at a price of \$0.30 per share, and a warrant to purchase an additional share of Common Stock exercisable at \$0.50 per share. The warrants become exercisable on January 18, 2010 and February 6, 2010 and remain exercisable until June 30, 2014, unless redeemed earlier as permitted. The warrants may be redeemed for nominal consideration if the Company's common stock trades above \$1.20 for at least 30 trading days in any 60-trading day period. Gross proceeds of the offering totaled approximately \$2.76 million.

The shares and warrants were offered and sold only to accredited investors in reliance on Section 4(2) of the Securities Act of 1933, as amended (the Securities Act), and Rule 506 promulgated there under. The shares and warrants sold in the private placement have not been registered under the Securities Act or state securities laws and may not be offered or sold in the United States absent registration with the Securities and Exchange Commission or an applicable exemption from the registration requirements. The Company has agreed to file a registration statement with the Securities and Exchange Commission covering the resale of the Shares and the shares of Common Stock issuable upon exercise of the warrants.

In connection with the offering, directors, officers and employees of the Company agreed to terminate options to purchase 4,005,000 shares of Common Stock with exercise prices ranging from \$2.52 to \$6.83 in order to provide sufficient shares for issuance in the offering. The reserve for the 2004 Equity Incentive Plan was reduced to the options remaining outstanding until such time as sufficient authorized shares are available to restore the reserve. In consideration, the Compensation Committee of the Board of Directors accelerated the vesting on 450,000 shares from a four year vesting schedule to a two year vesting schedule. The cancellation was effective July 17, 2009.

On July 2, 2009, Mr. Paul McDonnel indicated his intention to resign as Chief Financial Officer of Arrowhead Research Corporation (the Company) and its subsidiaries, including Calando Pharmaceuticals, Inc., effective as of August 10, 2009 or such other date as may be mutually agreed upon by Mr. McDonnel and the Company. Mr. McDonnel plans to relocate to Salt Lake City, Utah and has accepted a position as Chief Operating Officer of a private company. Effective as of July 6, 2009, Mr. McDonnel ceased to be a full-time employee of the Company and is compensated on a part-time basis for his services at an hourly rate of \$125 per hour for up to 10 hours of work per week as necessary to fulfill his responsibilities. Once Mr. McDonnel resigns his position as Chief Financial Officer, the Company expects that it may continue to utilize Mr. McDonnel as a consultant as needed to provide assistance with any ongoing transition matters.

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Commencing on July 6, 2009, to provide executive and financial management and continuity through the transition in light of Mr. McDonnell's reduced time commitment, Mr. Joseph T. Kingsley, the former President and Chief Financial Officer of Arrowhead, was named Vice President of Finance and Accounting. Mr. Kingsley will be paid pursuant to a consulting agreement on an hourly basis at a rate of \$125 per hour and is expected to devote up to 25 hours per week to executive and financial management of the Company, as well as financial reporting functions. The Board of Directors anticipates appointing Mr. Kingsley as interim Chief Financial Officer of the Company following Mr. McDonnell's departure as the Chief Financial Officer. Mr. Kingsley is expected to serve in this capacity until a permanent replacement for the position is hired.

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On July 15, 2009, Arrowhead agreed to a stock exchange transaction with existing Unidym holders to exchange approximately 750,000 shares of newly issued Arrowhead Common Stock for an equal number of Unidym Series C Preferred Stock with several Unidym holders. This transaction increased Arrowhead's interest in Unidym to 70%.

On July 30, 2009, Arrowhead acquired 291,667 shares of Series C-1 Convertible Preferred stock in Unidym for \$525,000. As a result of this transaction, the put options which were held by TEL Ventures were permanently waived.

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

This Quarterly Report on Form 10-Q contains forward-looking statements concerning future events and performance of the Company. When used in this report, the words intends, estimates, anticipates, believes, plans, may, will, should, projects or expects and similar included to identify forward-looking statements. These forward-looking statements are based on our current expectations and assumptions and many factors could cause our actual results to differ materially from those indicated in these forward-looking statements. You should review carefully the factors identified in this report under the caption Risk Factors and in our most recent Annual Report on Form 10-K filed with the SEC. We disclaim any intent to update or announce revisions to any forward-looking statements to reflect actual events or developments. Except as otherwise indicated herein, all dates referred to in this report represent periods or dates fixed with reference to the calendar year, rather than our fiscal year ending September 30. The three-month period ended June 30, 2009, may also be referred to as the third quarter of fiscal 2009.

### ***Overview***

Arrowhead is a development stage nanotechnology holding company that seeks to create stockholder value through the creation and operation of nanotechnology companies. Arrowhead currently owns two majority-owned subsidiaries, Unidym and Calando, two wholly-owned subsidiaries, Tego BioSciences Corporation ( Tego ) and Agonn Systems, Inc. ( Agonn ) and has minority investments in two early-stage nanotechnology companies, Nanotope, Inc. and Leonardo Biosystems, Inc. ( LBS ). Arrowhead's mission is to build value through the identification, development and commercialization of nanotechnology-related products and applications. Arrowhead is active in the operation of its subsidiaries, providing key management to the subsidiaries. The Company is currently focused almost exclusively on its lead subsidiary, Unidym, Inc. ( Unidym ) which anticipates initial sales of its transparent conductive materials into commercial markets in the near term. Arrowhead expects to allocate relatively little current capital to its other subsidiaries while maintaining the opportunity to obtain value from their technologies. The Company's three other majority-owned subsidiaries have shifted from operating activities to licensing/partnering models. The two minority holdings are separately financed. Unidym's products are intended to replace a key material used in touch panels, LCD displays, and thin-film solar cells. Arrowhead's business plan includes adding to its portfolio through selective acquisition and formation of new companies, as capital resources allow.

Unidym's products are intended to replace a key material used in touch panels, LCD displays, and thin-film solar cells. Unidym's products are expected to be price-competitive with materials currently in use and yield attractive gross margins. We believe the products have significant advantages over current technology that will provide customers with benefits that include: decreased manufacturing costs, increased production throughput, increased end product lifespan, and the ability to produce curved and flexible screens. Management believes that its business is more efficient and priorities are more focused on near-term value creation than ever before.

### ***Cash Resources***

At June 30, 2009, the Company had approximately \$1.9 million in cash to fund operations. Since September 30, 2008, the Company raised an additional \$7 million in capital, on a consolidated basis, through equity financing at the Arrowhead level and sales of equity and convertible loans by its subsidiaries. Subsequent to June 30, 2009, the Company completed a financing with gross offering proceeds of \$2.76 million. Even with this infusion of additional capital, the Company will still need to obtain more capital to meet its operating needs for fiscal 2010 and beyond. The Company is generating no significant revenue, and its fiscal 2009 operating losses and negative cash flows from operations raises doubts about its ability to continue as a going concern over the next 12 months and beyond. The accompanying financial statements do not reflect any adjustments that might result if the Company were unable to continue as a going concern.

The Company's Board of Directors has approved a strategy for the Company to focus on near term revenue opportunities, conserve cash resources and seek sources of new capital. To execute on this strategy, the Company is focusing its development efforts

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on Unidym's products. Arrowhead's other subsidiaries have shifted from a focus on internal development to a focus on partnerships and licensing. This strategy is intended to conserve cash while maintaining the opportunity to obtain value from the subsidiaries technologies. In the third quarter of fiscal 2009, Calando completed license agreements for one of its drug delivery platforms and its associated clinical candidate for \$2.4 million in cash and potential future milestone and royalty payments. This transaction follows the effort that began in early 2008 with the merger of the Company's two biopharmaceutical subsidiaries, reduction in personnel, termination of preclinical development projects and a focus toward continuing Calando's clinical program. Calando is continuing the clinical development of its siRNA drug candidate and is seeking a development partner for this technology. Calando has closed its Pasadena, California laboratory facility and plans to outsource laboratory development, as needed.

With the completion of the Cerulean license and the termination of the Calando facility lease, Calando's laboratory and related equipment was donated to Caltech. The equipment had a historical cost of \$1,244,774 and accumulated depreciation of \$1,111,568. Calando recognized a loss equal to the net book value of the equipment in the amount of \$133,206 in the current quarter.

Unidym has also executed its plan to dramatically reduce staff and operations beginning with reductions in management personnel in the first quarter of fiscal 2009, the closure of its Houston, TX facility in the second quarter, the consolidation of its operations in Northern California, and the renegotiation of several key liabilities. Unidym also received \$700,000 from the sale of its ownership interest in Ensycse BioSciences Inc. ( Ensycse ), a Unidym affiliate. Unidym has shifted its strategy from one of building a vertically integrated company to working with partners to commercialize its technology. Tego and Agonn have limited operations and currently require very little cash. Cash conservation measures at the Arrowhead level have been taken and are expected to continue.

### ***Majority-owned Subsidiaries***

Arrowhead currently has two majority-owned subsidiaries, two wholly-owned subsidiaries, and minority investments in two development stage nanotechnology companies. The Company's subsidiaries are seeking to commercialize or license the technology covering a variety of nanotechnology products and applications, including anti-cancer drugs, RNAi therapeutics, carbon-based electronics and fullerene based anti-oxidants. The Company's minority investments are focused on developing advanced nanomaterials for spinal cord injury and wound healing and drug delivery technology.

Arrowhead has been active in the operation of its subsidiaries, providing key management functions. The Company has determined that having large management teams at Calando and Unidym required significant cash and reduced the overall operational efficiency of each subsidiary and the Company on a consolidated basis. During fiscal 2008 and in the first quarter of fiscal 2009, Calando and Unidym terminated their respective senior management teams. As a result, greater managerial responsibilities have been delegated by the subsidiaries to Arrowhead, a trend the Company expects to continue through fiscal 2009 and beyond. With the decision to move to a licensing model for Calando and the decision to reduce overhead costs at Unidym, the amount of cash needed to fund both operations will be reduced going forward.

### ***Unidym***

Unidym's products are based on electronics-grade carbon nanotubes (CNTs), a class of molecules with multiple unique properties. For instance, some varieties conduct electricity better than copper, they are stronger than steel, and they may be synthesized in bulk quantities. In 2005, the CNT field was highly fragmented, and Arrowhead sought to consolidate the intellectual property for the technology and create a dominant position in high value CNTs. As a result of licensing from over a dozen universities and acquisitions of three CNT-related companies, Unidym owns or has exclusive license to a large portfolio of approximately 150 key CNT-related patents and patent applications. The Company believes Unidym holds foundational intellectual property surrounding high value electronics grade CNT manufacturing and processing. With this strong patent portfolio and significant experience applying this technology to electronics markets, Unidym believes that it is well-positioned to address downstream display markets beginning in 2009.

Unidym's target within the display markets is transparent conductive materials which are critical components in touch panels, LCDs and solar cells. The primary material currently in use is indium tin oxide (ITO) and Unidym believes there is widespread interest in replacing ITO for many reasons, including: advantages provided by manufacturing processes, durability, bright light readability, and environmental issues. Unidym's replacement product for ITO is a line of transparent conductive CNT material. Unidym's management team is focused on customer interaction to optimize its products to meet customer specifications with a goal of generating product sales for touch screens in the near term.

The capital expenditures associated with CNT synthesis are kept low by both the scalability of Unidym's CNT synthesis process and the fact that only trace amounts of CNTs are required per unit area of film. Additionally, Unidym plans to leverage the substantial excess capacity left in the film coating industry by the decrease in demand for photographic film. For its initial product offering to touch panel makers, Unidym is planning to work with partners to leverage Unidym's expertise while minimizing capital requirements. As part of this strategy, on May 1, 2009,

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Unidym transferred a portion of its assets for CNT production to Continental Carbon ( CCNI ), a manufacturer of CNTs and carbon black, and is in the process of negotiating a license and supply agreement so that Continental Carbon can produce the majority of Unidym's CNT supply needs. The consideration for the assets to be transferred and licenses to be granted in the second agreement is still being negotiated, but is expected to consist of upfront payments and royalties. Subject to completion of the second agreement, CCNI will make earn out payments of up to \$26.5 million to Unidym based

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on achieving certain sales milestones. Unidym and CCNI also executed a warrant agreement, whereby CCNI can purchase up to 3,346,208 shares of Unidym common stock at \$0.25 per share expiring May 1, 2012. Unidym anticipates retaining some limited in-house CNT production capability for product improvements and as a second source of supply. Unidym plans to manufacture CNT inks and is negotiating with potential partners to manufacture and sell films to customers.

In the first nine months of fiscal 2009, Unidym focused on reducing costs and restructuring operations. In fiscal 2008, Unidym expanded its activities substantially in anticipation of a product launch and an initial public offering. Unidym's cash burn peaked at \$4.2 million in the fourth quarter of fiscal 2008. During the fourth quarter of fiscal 2008, it became clear that Unidym would be unable to meet its fund raising goals to support the fiscal 2009 cash needs under its then current plan of operations. Moreover, technical development took longer than expected and it became evident that dramatic changes in the financial markets would not allow a near-term initial public offering. In first quarter of fiscal 2009, Unidym's plant in Texas was downsized, the Unidym executive management team was terminated and management responsibilities were delegated by the Unidym board to Arrowhead personnel. Early in the second quarter of fiscal 2009, the decision was made to close the Texas facility and the remaining Texas employees were terminated. In connection with the agreement with CCNI described above, CCNI agreed to reimburse Unidym an amount up to \$200,000 for dismantling and relocating the equipment from the facility that Unidym previously occupied in Houston, Texas.

In November 2008, Unidym raised \$2 million through the sale of Series C-1 Preferred Stock to Tokyo Electron Ventures (TEL Ventures). In connection with the investment, TEL Ventures was granted two put options that obligated Unidym to repurchase TEL Ventures Series C-1 Stock in the event Unidym did not achieve certain cash flow requirements and enter into a joint development agreement with TEL Ventures. The contingent buy back obligations were secured by certain Unidym intellectual property assets. On June 25, 2009, Unidym and TEL Ventures entered into an IP Transfer and Waiver Agreement whereby the cash flow requirement was reduced and the security agreement terminated in exchange for certain rights to Unidym's technology and a future royalty on product sales, described in more detail below. In addition, also on June 25, 2009, in exchange for Company Common Stock, Arrowhead acquired most of TEL Ventures' equity position in Unidym, consisting of 1,111,111 shares of Series C Stock and 833,333 shares of Series C-1 Stock. On July 31, 2009, the cash flow requirement was met and the put rights were permanently waived.

Unidym requires additional capital to fund its operations and obligations through fiscal 2009.

A material portion of Unidym's intellectual property portfolio is exclusively licensed from Rice University. If the sum of Unidym's debts, liabilities and other obligations were greater than all of Unidym's assets at fair valuation or if Unidym were generally not paying its debts, liabilities and other obligations as they come due, the Rice license would terminate.

The development, production and sale of Unidym's products have required and are expected to continue to require significant investment and to take a long time. There are a variety of technical, cost, and marketing barriers that must be overcome. It is not possible at this time to predict the final cost of developing Unidym's transparent conductive film or other CNT products, the final cost of scaling up the production process, when or if Unidym will generate significant licensing revenue, or when or if Unidym will become profitable.

*Calando*

Calando is a clinical stage oncology drug delivery company that has developed a delivery platform for the delivery of siRNA therapeutics and small molecule drugs. Calando has one siRNA based clinical candidate in a Phase I clinical trial. RNAi, a recently discovered cellular process that silences the expression of target genes, is mediated by siRNA. Because many disease states are caused by the inappropriate activity of genes, RNAi holds great therapeutic promise. CALAA-001 is a combination of Calando's linear cyclodextrin based polymer RONDREL and siRNA. We believe the use of CALAA-001 in Calando's Phase I trial was the first siRNA therapeutic candidate to target cancer in a human clinical study and also the first systemic delivery of an siRNA therapeutic candidate. The trial is utilizing a dose escalation protocol which is nearing the highest dose in the protocol with recent promising results. Calando plans to complete the Phase I trial, as capital resources allow, and is seeking a partner for the further development of both the siRNA delivery platform and CALAA-01.

The other clinical candidate is IT-101, a conjugate of Calando's delivery molecule and the potent small molecule anti-cancer drug, Camptothecin. IT-101 has completed a Phase I clinical trial with a positive safety profile and indications of efficacy. On June 23, 2009, Calando entered into agreements to license its small molecule delivery platform and IT-101, to Cerulean Pharma, Inc. (Cerulean), a Boston, MA based biotech company. Under the terms of the agreements, Calando granted Cerulean an exclusive royalty-bearing worldwide license to certain patent rights and know-how and transferred to Cerulean certain intellectual property related to the linear-cyclodextrin drug delivery platform and IT-101 in exchange for an initial payment of \$2.4 million. Under the agreements, Calando retains the rights to use the linear-cyclodextrin drug delivery platform to deliver tubulysin, cytolysin (the rights



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to deliver both of which were sublicensed by Calando to R&D Biopharmaceuticals GmbH), second generation epothilones, as well as any kind of nucleic acid, e.g., a DNA or siRNA therapeutics. As such, Calando retains the rights to its RONDEL™ platform, as well as the CALAA-01 and CALAA-02 lead drugs. In connection with the Cerulean Agreements, Calando closed its Phase 2 clinical studies for IT-101.

Under the terms of the agreements, Cerulean will pay Calando up to \$2.75 million in development milestone payments if IT-101 progresses through clinical trials and receives marketing approval. If approved, Calando is also entitled to receive up to an additional \$30 million in sales milestones, plus royalties on net sales, depending on sales levels, with any development milestone payments credited against such royalties. For every new drug candidate that Cerulean is able to bring to market with the linear-cyclodextrin drug delivery platform, Calando is entitled to receive up to \$3 million in development milestone payments and up to an additional \$15 million in sales milestones, plus royalties on annual net sales, depending on sales levels, with any development milestone payments credited against such royalties. In addition, should Cerulean enter into any sublicense agreements for the development and sale of IT-101, Calando shall be entitled to 10% to 40% of Cerulean's sublicense income, depending on timing of the underlying sublicensing deal.

Historically, Calando chose to finance the development of drug candidates and its platform systems from its own resources and minority investments. Calando has moved from an internal development strategy to a partnership and licensing model. In line with this strategy, Calando phased down its operations significantly in the first half of fiscal 2009 as part of the Company's overall cash conservation strategy and closed its laboratory facility on June 30, 2009. Calando intends to further reduce expenses beginning in July 2009 except for limited expenses to complete the CALAA-01 Phase 1 clinical study. We believe there is an opportunity to derive value from the further development of the Calando platform drug delivery systems, as they have been demonstrated to enhance and enable the delivery of diverse pharmaceutical entities, including peptides and small molecules as well as other RNA and DNA-based oligonucleotides.

Significant cash was consumed in fiscal 2008 and in the first three quarters of fiscal 2009 for Calando's clinical program and the development of a second siRNA therapeutic. Much of the \$2.4 million payment from Cerulean is expected to be used to pay down Calando's existing obligations and it is likely that Calando's cash on hand will not be sufficient to satisfy all of those obligations. Calando's cash consumption has been reduced from fiscal 2008 levels of \$2.2 to \$2.6 million per quarter to \$1.6 million in the third fiscal quarter of 2009. It is expected that Calando's cash burn will further decrease as it completes the phase down of operations.

The development of CALAA-01, IT-101 and other pipeline candidates are preliminary, and there is no assurance that they will be successful. There are numerous technical, regulatory and marketing challenges that must be overcome to successfully commercialize Calando's products, including, but not limited to the following:

Advancing pipeline candidates requires extensive preclinical testing and approval by the U.S. Food and Drug Administration (FDA) before clinical testing can commence.

Advancing therapeutic candidates through preclinical and clinical testing is expensive, resource intensive and time consuming.

Complications may arise that would cause the clinical testing to be interrupted or stopped. FDA approval is required before products can be sold.

Even if FDA approval is eventually obtained, there is no assurance that it will be accepted by the medical community. It is not possible at this time to accurately determine the final cost of the development projects, the completion dates, or when or if revenue will commence.

## **Wholly-owned Subsidiaries**

### *Tego*

Tego's primary asset is an intellectual property portfolio that includes key patents for the modification of fullerenes. Tego does not control the intellectual property relating to making fullerenes; however, the Company believes that it does control key patents that are critical in making fullerenes into useable products. The Company believes Tego is in a position to monetize its proprietary compounds and enabling patents



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through a licensing and partnership model. Currently, Tego has no employees or facilities and its technical and business development is handled at the Arrowhead level. Tego is in discussions with other companies regarding potential partnerships and licenses which could enable Arrowhead to capture value via near-term revenue, and long-term royalties. Tego's development and licensing activities are preliminary, and there is no assurance that they will be successful. It is not possible at this time to accurately determine the final cost of developing or licensing Tego's technology, the completion date, or when or if revenue will commence.

**Table of Contents***Agonn*

Agonn was formed in 2008 to develop and commercialize nanotechnology-based energy storage devices for electric vehicles and other large format applications. The Company believes the markets for energy storage products are substantial, ranging from consumer electronics to vehicles to heavy industry and that emerging clean technology platforms offer significant market opportunities for new energy storage devices, in part because traditional batteries do not meet many of the key requirements for energy density, lifetime and efficiency. Agonn has no facilities or employees and is managed entirely by Arrowhead. As of June 30, 2009, Agonn's research and development activities are preliminary, and there is no assurance that they will be successful. It is not possible at this time to accurately determine the final cost of developing Agonn's technology, the completion date, or when or if revenue will commence.

**Minority Investments***Nanotope*

Arrowhead owns 22% of Nanotope, which is not a consolidated subsidiary because of Arrowhead's minority ownership. Nanotope is a regenerative medicine company that leverages a platform technology to address multiple therapeutic markets. It is developing a suite of products, each customized to regenerate specific tissues: including neuronal, vascular, cartilage, and myocardial tissues. Products are injectable compounds that work with surviving cells in and around the point of injury to initiate and support regeneration. Once regeneration is complete, the compounds are safely broken down and removed by the body. Nanotope's lead products, shown to be effective in multiple animal models, target: (i) spinal cord regeneration for the reversal of paralysis associated with spinal cord injury; (ii) cartilage regeneration and (iii) advanced wound healing. Nanotope is positioned to enter into a commercialization corporate partnership in 2009 and expects to be able to start a first round of clinical trials in 2010. Nanotope's model is to partner product candidates prior to clinical trials and, therefore, assume no clinical costs. Nanotope was co-founded by Dr. Anzalone, the Company's CEO prior to his employment by Arrowhead. Dr. Anzalone, through his ownership in the Benet Group, owns 14% of the outstanding stock of Nanotope and serves as the CEO of Nanotope.

The Company acquired its initial stake in Nanotope from a Nanotope shareholder in April 2008 and increased its position through a direct investment of \$2 million in two tranches of \$1 million each in July 2008 and September 2008. At June 30, 2009, the Company owned 22% of Nanotope's outstanding securities. The Company may increase its stake in Nanotope if the opportunity arises, the Company has the capital resources to do so and Nanotope's technology development continues to move forward. The Company's investment in Nanotope is accounted for using the equity method of accounting.

**Related-Party Interests**

Nanotope was co-founded by the Company's President and Chief Executive Officer, Dr. Anzalone, through the Benet Group, a private investment entity solely owned and managed by Dr. Anzalone. Through the Benet Group, Dr. Anzalone owns 1,395,900 shares of Nanotope common stock, or approximately 14.2% (after giving effect to the sale of stock to Arrowhead in its investments in Nanotope) of Nanotope's outstanding voting securities. Dr. Anzalone does not hold options, warrants or any other rights to acquire securities of Nanotope directly or through the Benet Group. The Benet Group 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 the Benet Group. 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.

*Leonardo Biosystems, Inc.*

Arrowhead has a 6% interest in Leonardo Biosystems, Inc. (Leonardo or LBS) Leonardo is a drug delivery company built around technology developed by Dr. Mauro Ferrari, one of the world's best-known nano-cancer scientists. Leonardo has a multi-stage delivery platform that has been shown in animal models to be highly effective in targeting delivery of siRNA and small molecule drugs. It expects to enter into commercial development partnerships in 2010. Leonardo was co-founded by Dr. Anzalone, the Company's CEO, prior to his employment by Arrowhead. Dr. Anzalone, through his ownership in the Benet Group, owns 17% of the outstanding stock of Leonardo and he serves as the CEO of Leonardo.

The Company is interested in increasing its stake in LBS if the opportunity arises, the Company has the capital resources and LBS's technology development continues to move forward. The Company's investment in LBS of \$187,000 is accounted for using the cost method of accounting.



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### **Related-Party Interests**

Like Nanotope, LBS was co-founded by Dr. Anzalone, through the Benet Group. Through the Benet Group, Dr. Anzalone owns 918,750 shares of LBS common stock, or approximately 17% of the outstanding stock of LBS. Dr. Anzalone does not hold options, warrants or any other rights to acquire securities of LBS directly or through the Benet Group. The Benet Group has the right to appoint a representative to the board of directors of LBS. Dr. Anzalone currently serves on the LBS board in a seat reserved for LBS's CEO and another individual holds the seat designated by the Benet Group. Dr. Anzalone has served as President and Chief Executive Officer of LBS since its formation and continues to serve in these capacities. Dr. Anzalone has not received any compensation for his work on behalf of LBS 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 LBS before he joined the Company.

### **Aonex Discontinued Operation**

In 2007, Arrowhead determined that in order to monetize Arrowhead's investment in majority-owned subsidiary Aonex, Aonex should seek to partner its technology with another company with greater financial resources and market reach. In May 2008, Arrowhead sold its stake in Aonex to New Hampshire-based Amberwave Systems, Inc. for upfront and milestone payments of up to \$7.5 million plus a royalty on solar products or licenses. Amberwave took over Aonex's Pasadena, California operations and is continuing to develop Aonex's technology. The losses incurred by Aonex are segregated in the Consolidated Statement of Operations as Loss from Discontinued Operation Aonex.

Arrowhead has preference to the first \$6,298,000 in future milestone and royalty payments after which any additional payments will be split 64% to Arrowhead and 36% to the holders of the common stock of Aonex. As of June 30, 2009, only the payment payable at the time of the merger has been received.

### **Academic Partnerships**

In prior years, Arrowhead devoted significant capital resources to sponsored research. As the subsidiaries have matured, the Company has decreased its reliance on sponsored research for technology development and sponsored research expense has decreased. As of June 30, 2009, Unidym had one active sponsored research agreement at Duke University. Negotiations with Duke to reduce the scope of the sponsored research project are expected to reduce the cost to approximately \$100,000 per year. Depending on capital resources, Arrowhead and/or its subsidiaries expect to continue to invest in nanoscience research and development through sponsored research agreements at universities.

### **Factors Affecting Further R&D Expenses**

Since early fiscal 2009, the Company has dramatically decreased its research and development expenses due to cash constraints. Research and development expenses are expected to fluctuate in the foreseeable future as the Company's product development efforts move through various phases of development and as capital resources allow. Each phase of development requires different resources. Also, the pace of development can affect the resources required. Over the past five years, the Company has added subsidiaries and products to its pipeline, added research and development personnel, engineers, business development and marketing personnel; expanded its pre-clinical research, begun clinical trial activities, increased its regulatory compliance capabilities, and purchased capital equipment and laboratory supplies. The timing and amount of these fluctuations in expenses is difficult to predict due to the uncertainty inherent in the timing and extent of progress in the Company's research programs. As the Company's research efforts evolve, it will continue to review the direction of its research based on an assessment of the value of possible commercial applications emerging from these efforts.

In addition to these general factors, specific factors that will determine the eventual cost to complete the current projects at Calando, Nanotope, LBS or their partners and potential partners include the following:

the number, size and duration of clinical trials required to gain FDA approval;

the costs of producing supplies of the drug candidates needed for clinical trials and regulatory submissions;

the efficacy and safety profile of the drug candidate; and

the costs and timing of, and the ability to secure, regulatory approvals.

It is possible that the completion of studies could be delayed for a variety of reasons, including difficulties in enrolling patients, delays in manufacturing, incomplete or inconsistent data from the pre-clinical or clinical trials, difficulties evaluating the trial results and lack of funding. Any delay in completion of a trial would increase the cost of that trial. Due to these uncertainties, the Company cannot reasonably estimate the amount or timing of cash inflows from Calando's current activities.

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

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

#### ***Revenue Recognition***

Revenue from product sales are recorded when persuasive evidence exists that 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.

Revenue associated with up-front license fees and 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 substantive milestones and future product royalties is 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 an impairment is indicated, the asset is written down to its estimated fair value based on quoted fair market values.

#### ***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 any impairment found is written off. Licensed or internally developed patents are written off over the life of the patent unless impairment occurs. Purchased patents are written off over three years, unless an impairment occurs sooner.

### **Results of Operations**

In each of fiscal 2005, 2006, and 2007, Arrowhead and its subsidiaries raised approximately \$21 million of capital on a consolidated basis. In fiscal 2008, Arrowhead raised approximately \$16 million of capital on a consolidated basis. Based on these historical levels, Calando continued its clinical program, began development of an additional RNAi therapeutic and began seeking a partner or an acquirer for its business. Unidym began to aggressively ramp up operations to manufacture and sell its CNT-based products and to prepare for an initial public offering. In addition, Arrowhead had several potential ventures in the pipeline. During the first quarter of fiscal 2009, it became apparent that it was unlikely in the near term, in light of dramatic changes in the capital markets, that the Company would be able to raise or obtain sufficient capital to sustain operations at historical levels. In December 2008, the



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Company's Board of Directors approved a plan to focus various development efforts on those projects with the highest probability of creating value and bringing in cash over the shorter term and to streamline the organization to reduce cash consumption on a consolidated basis. While the Company has made significant progress on reducing cash consumption, operational inertia and the current economic climate continue to challenge the Company as it strives to implement this plan.

During the first quarter of fiscal 2009, the Company obtained \$5.2 million of additional cash on a consolidated basis through a combination of debt and equity financing and sale of non-core assets. During the second quarter, Unidym made substantial progress with a change in strategy and restructuring operations and obligations in order to continue its product development in a less capital intensive way and has continued to gain traction with key partners and customers. In the third quarter, Calando completed a transaction with another biotech company for the further development of IT-101 and its associated delivery platform that resulted in an upfront payment of \$2.4 million and is seeking a partner for the further development of its siRNA delivery platform and siRNA clinical program. As such, Calando's operations have been reduced and its laboratory facilities have been closed. Many of the employees and projects added in fiscal 2008 in pursuit of larger, longer-term efforts have been scaled back or suspended in response to the changing capital markets. Head count on a consolidated basis has been reduced from a high of nearly 70 employees to 21 employees. Cost savings from the various scale back activities are reflected in the current quarter's results and are expected to continue into the remaining quarter of fiscal 2009 and into fiscal 2010.

The Company had a consolidated net loss of approximately \$2.5 and \$15.8 million for the three month and nine month periods ended June 30, 2009, respectively, versus a consolidated net loss of \$7.8 and \$18.3 during the same three month and nine month periods in the prior year. The decrease in the quarterly loss resulted primarily from a \$5.1 million decrease in operating expenses compared to the same quarter in the prior year.

### **Revenues**

The Company generated revenues of \$2,633,191 and \$235,372 for the three months ended June 30, 2009 and 2008, respectively. The revenue for the three months ended June 30, 2009 consists of \$1,750,000 from license fees from Calando, \$684,531 from the sales of inventory by Calando, and \$198,660 from sales and delivery of CNTs and inks by Unidym. The prior year third quarter revenues consist of \$85,000 in license fees from Unidym and \$150,372 from Unidym's sales and delivery of CNTs.

The Company generated revenues of \$3,570,564 and \$1,362,999 for the nine months ended June 30, 2009, and 2008, respectively. The revenue for the nine months ended June 30, 2009 consist of \$2,207,500 from license fees from Unidym and Calando technology, \$202,948 in grants to Unidym to fund research, \$20,000 in collaboration fees and \$684,531 from sales of inventory materials by Calando and \$455,585 from sales and delivery of CNTs and inks by Unidym. The prior year nine month revenues consist of \$85,000 in license fees from Unidym \$748,487 in grants to Unidym to fund research and \$529,512 from Unidym's sales and delivery of CNTs.

It is anticipated that the mix of revenues will change over future periods. With the completion of the agreement between Unidym and CCNI, revenues from CNT sales are expected to cease, while revenues from sales of Unidym's CNT-based inks or films are expected to commence in the near term.

### **Operating Expenses**

The Company had operating expenses of \$5.0 million and \$19.8 million during the three months and nine months ended June 30, 2009, compared to \$10.1 million and \$24.8 million in the same three and nine month periods in the prior year.

#### *Three months ended June 30, 2009 and 2008*

The Company has undertaken a program to reduce its cash consumption on a consolidated basis. The cost savings began to be realized in the results of operations for the second quarter of fiscal 2009 and continue in the third quarter of fiscal 2009. Certain expenses, such as license fees, legal and accounting expenses and capital expenses vary over time and on a project by project basis resulting in fluctuations in expenses as periods are compared. Actions subsequent to quarter-end have also been implemented and it is expected that the reductions in cash consumption will continue to be realized in the fourth quarter of 2009.

Calando's cash consumed by operations was approximately \$1,607,000 during the third quarter compared to \$1,422,000 during the second quarter and to \$2.4 million in the first quarter of fiscal 2009. During the third quarter, Calando incurred expenses related to the close down of the Phase 2 clinical study for IT-101, ongoing clinical trial expenses for CALAA-01, as well as additional preclinical expenses related to its clinical candidate, CALAA-02. Cash from the license agreement was also used to pay accrued expenses from the prior quarter, increasing the cash consumed compared in the current quarter.



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Expenses incurred at Calando during the third quarter of fiscal 2009 include approximately \$263,000 in salary and related expense, \$646,000 in clinical and preclinical research and development and consulting expenses and \$307,000 in general and

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administrative expenses compared to approximately \$405,000 in salary and related expense, \$2.0 million in clinical and preclinical research, development and consulting expenses and \$467,000 in general and administrative expenses in the same period in fiscal 2008. As of June 30, 2009, Calando has limited operations and closed its laboratory facility. Two employees have been retained to oversee the CALAA-01 clinical study and to facilitate partnership arrangements for CALAA-01 and IT-101.

Unidym's cash consumed by operations was approximately \$0.8 million in the third quarter. Unidym's continuing business development efforts include providing samples of films and inks to customers in the touch panel and LCD industries and continuing its joint development with Samsung. Product development efforts were focused on CNT inks and films as well as improving Unidym's processes for high quality CNT production. Unidym took aggressive steps to reduce its cash consumption beginning in the fourth quarter of the prior fiscal year. Reductions in management headcount made during the first quarter of fiscal 2009 included the CFO, CTO, VP of Finance, Corporate Controller, Vice President of Sales and Marketing, Vice President of Business Development and Plant Controller position. The CEO was terminated in December 2008 and executive management responsibility was delegated by the Unidym board to Arrowhead personnel. In addition, several employees at Unidym's Texas facilities were put on unpaid furlough in November 2008 and terminated in December 2008 and January 2009. During the second quarter of fiscal 2009, the decision was made to close Unidym's Texas facility and the remaining employees in Texas were terminated. Expenses incurred in the third quarter of fiscal 2009 include approximately \$508,000 in salaries and related expenses, approximately \$508,000 in research and development expenses, a non cash write off of \$1,661,000 of in-process R&D related to the acquisition of 3.4 million shares of Unidym stock from minority stockholders and approximately \$298,000 in general, administrative and consulting expenses. Comparable expenses incurred during the third quarter of fiscal 2008 included approximately \$1.7 million in salaries and related expenses, approximately \$1 million in research and development expenses, approximately \$369,000 in consulting, and approximately \$656,000 in general, administrative and consulting expenses. Expenses are expected to continue to decrease in the coming quarters as the streamlining and consolidating measures take effect.

The closure of the Texas plant resulted in significant savings that were expected to be partially offset by near term closure expenses estimated at \$200,000 to \$300,000 and the build out of CNT production capability in Northern California estimated at \$500,000. On May 1, 2009, Unidym entered into an agreement with a partner to transfer certain assets related to CNT manufacturing from its Texas facility in anticipation of a license and supply agreement currently being negotiated. Pursuant to the agreement, the partner has agreed to reimburse Unidym up to \$200,000 to dismantle and relocate the equipment out of the Texas plant. This reimbursement is expected to significantly offset closure expenses. Additionally, in light of the agreement to outsource the manufacturing of CNTs to a partner, the requirements to build out a manufacturing facility in Northern California now are expected to be less capital intensive than previously projected and may be postponed to a later time.

The pace of development in fiscal 2009 will depend on the cash resources available to Unidym. Unidym is seeking additional capital to continue to fund development of its products. If Unidym is unsuccessful in obtaining sufficient capital to fund its operations, further development of Unidym's products may have to be slowed, interrupted or ceased altogether.

Expenses incurred at Arrowhead corporate during the third quarter of fiscal 2009 include approximately \$316,000 in salary and related expense offset by the reversal of an accrual of \$726,500 as a result of the Chairman's agreement to forgo most of his severance upon termination, \$25,000 in consulting expenses and \$456,000 in general and administrative expenses. Expenses during the same period in the prior year were approximately \$649,000 in salary and related expense, \$44,000 in consulting expenses and \$557,000 in general and administrative expenses. Arrowhead corporate expenses are expected to decrease as the full impact of the staff reductions are reflected in the operating results.

The \$1,661,000 estimated fair value of Arrowhead stock issued to purchase Unidym shares from minority stockholders of Unidym increases Arrowhead's investment in the subsidiary, but does not result in any increase in Unidym's asset or capital accounts. Such additional investments by Arrowhead, that do not result in additional assets or capital at the subsidiary level, are expensed in consolidation as purchased in-process research and development in accordance with FIN 4.

Expenses related to Tego and Agonn were minimal during the quarter due to reduced development efforts and a focus by Tego for an out license of its technology. Total combined expenses of approximately \$6,000 and \$290,000 were incurred by Tego and Agonn, respectively, in the continued development of their respective technologies during the quarters ended June 30, 2009 and 2008.

*Nine months ended June 30, 2009 and 2008*

Unidym's expenses during the first nine months of fiscal 2009 include \$2.7 million in salaries and related expense, \$4.3 million in research and development expenses, \$248,000 in general and administrative expenses and \$94,000 in consulting expenses compared to \$4.2 million in salaries and related expenses, \$3.2 million in research and development expenses and \$1.6 million in general and administrative expenses and \$860,000 in consulting expenses in the same period in the last fiscal year.

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Expenses incurred at Calando during the first nine months of fiscal 2009 include approximately \$1.1 million in salary and related expense, \$4.3 million in clinical and preclinical research, development and consulting expenses and \$302,000 in general and administrative expenses.

Expenses incurred at Calando during the first nine months of fiscal 2008 include approximately \$2.1 million in salary and related expense, \$4.1 million in clinical and preclinical research, development and consulting expenses and \$1.4 in general and administrative expenses.

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During the first nine months of fiscal 2008, Unidym was focused on staffing up for an initial public offering and ramping up for pilot scale manufacturing and marketing of its products. Calando and Insert were preparing to merge, continuing clinical development of IT-101 and preparing for clinical development of CALAA-01. During the first nine months of fiscal 2008, Unidym completed a \$10 million equity financing and added a CFO and a Vice President of Finance to prepare for an initial public offering. Unidym also hired other executive level personnel and consulting experts during this period to rapidly expand its capability to produce its transparent conductive film and add to its CNT production capacity. Unidym was continuing to ramp up its research and development efforts through the first nine months of fiscal 2008.

Development expenses at Calando consisted of expenses related to the ongoing Phase 1 trial for IT-101, completion of the final studies in preparation for its Investigational New Drug Application for CALAA-01, and expenses related to expanding Insert's drug candidate pipeline.

Expenses incurred at Arrowhead corporate during the first nine months of 2009 include approximately \$1.3 million in salary and related expense, \$92,000 in consulting expenses and \$1.7 million in general and administrative expenses as compared to approximately \$1.2 million in salary and related expense, \$118,000 in consulting expenses, \$1.7 million in general and administrative expenses and \$267,000 in sponsored research for the same period in the prior fiscal year. Excluding the non-cash stock based compensation expense,

Operating expenses include a non-cash \$1.66 million in process research and development expense which is equal to the fair value of Arrowhead Common Stock issued to purchase Unidym shares from minority stockholders of Unidym.

For purposes of comparison, the amounts for the three months and nine months ended June 30, 2009 and 2008, respectively, are shown in the tables below. Prior period amounts have been reclassified to conform to the current period presentation. Historical amounts have been adjusted to eliminate any Aonex related activities as a result of its sale in May 2008. Aonex is now reflected as Discontinued Operations in the financial statements.

**Salary & Wage Expenses**

The Company employs management, administrative and technical staff at Arrowhead and its subsidiaries. Salary and wage expense consists of salary, benefits, and non-cash charges related to equity based compensation in the form of stock options. Salary and benefits are allocated to two major categories: general and administrative compensation related expense and research and development compensation related expense depending on the primary activities of each employee. The following table details salary and related expenses for three months and nine months ended June 30, 2009 and 2008.

**For the three months ended June 30, 2009 and 2008***(in thousands)*

	Three Months Ended June 30, 2009	% of Expense Category	Three Months Ended June 30, 2008	% of Expense Category	Increase (Decrease)	
					\$	%
G&A compensation-related	\$ (43)	(5)%	\$ 1,981	52%	\$ (2,024)	(102)%
Stock-based compensation	\$ 555	63%	\$ 1,028	27%	\$ (473)	(46)%
R&D compensation-related	\$ 377	42%	\$ 777	21%	\$ (400)	(51)%
Total	\$ 889	100%	\$ 3,786	100%	\$ (2,897)	(76)%

**For the nine months ended June 30, 2009 and 2008***(in thousands)*

	Nine Months Ended	% of Expense	Nine Months Ended	% of Expense	Increase (Decrease)	
					\$	%

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	June 30, 2009	Category	June 30, 2008	Category		
G&A compensation-related	\$ 2,342	36%	\$ 4,572	45%	\$ (2,230)	(48)%
Stock-based compensation	\$ 1,979	31%	\$ 2,570	25%	\$ (591)	(22)%
R&D compensation-related	\$ 2,145	33%	\$ 3,045	30%	\$ (900)	(29)%
Total	\$ 6,466	100%	\$ 10,187	100%	\$ (3,721)	(36)%

General and Administrative (G&A) compensation expense was offset by a reduction of accrued severance pursuant to an amendment in the severance agreement between the Company and the Executive Chairman, such that, in the event his employment with the Company terminates, he would receive a lump sum payment equal to one month's rather than 36 months' salary. This change resulted in a reduction in the accrued severance liability on Company's balance sheet from \$750,000 as of March 31, 2009 to approximately \$24,000 for the period ending June 30, 2009. The G&A compensation expense would have been approximately

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\$773,000 without this adjustment. The Company has made a combination of terminations and salary reductions during the first nine months of fiscal 2009 compared to the prior year periods. In the prior year, positions were added at Arrowhead including a Chief Executive Officer (December 2007), a Vice President, Medical Technologies (February 2008), a Chief Patent Officer (April 2008) and a Vice President, Advanced Materials (May 2008). Comparing periods on a consolidated basis, the cost of the new positions at Arrowhead is offset by the termination of several senior management positions at Unidym and at Calando made during the nine months ended June 30, 2009. The terminations were executed to reduce Unidym's rate of cash consumption by reducing Unidym's administrative overhead. The Unidym terminations included the CEO, CFO, VP of Finance, Corporate Controller, Vice President of Sales, Vice President of Marketing and Business Development and Plant Controller positions. These responsibilities have been absorbed by remaining Unidym employees or remaining Arrowhead management, administrative and finance personnel.

The decrease in G&A salaries also includes the impact of the salary reductions for selected management and staff at Arrowhead and Unidym.

Stock-based compensation is a non-cash charge related to the issuance and vesting of stock options to new and existing employees. This expense is recorded pursuant to the adoption of SFAS 123R, which requires expensing of stock-based compensation for all options vested. Stock options are awarded to new full time employees and to existing employees. During the quarter, the

number of options outstanding decreased overall as a result of options being canceled following terminations. The number of options outstanding and the option expense will vary from period to period depending on hiring, on terminations and on awards to new and existing employees.

Research and development (R&D) compensation expense decreased in the three months and nine months ended June 30, 2009 compared to the same period the prior year due primarily to Unidym's reduction in research scientists and process engineers and the closure of Unidym's Texas facility. Calando has also reduced laboratory personnel in connection with its decision to license its technology and close its laboratory facility. Two employees have been retained to complete the CALAA-01 clinical study and to facilitate the partnership arrangements for Calando's technology.

On a consolidated basis, the Company expects that the salaries and wages expense will continue to decrease compared to the prior year as a result of recent reductions in headcount and salaries throughout the organization.

**General & Administrative Expenses**

The following table details G&A expenses for the three months and nine months ended June 30, 2009 and 2008.

**For the three months ended June 30, 2009 and 2008**

*(in thousands)*

	Three Months		Three Months		Increase (Decrease)	
	Ended June 30, 2009	% of Expense Category	Ended June 30, 2008	% of Expense Category	\$	%
Professional/outside services	\$ 491	47%	\$ 425	25%	\$ 66	15%
Recruiting	\$ 1	%	\$ 65	4%	\$ (64)	(98)%
Patent expense	\$ 199	19%	\$ 464	27%	\$ (265)	(57)%
Facilities and related	\$ 71	7%	\$ 69	4%	\$ 2	3%
Travel	\$ 63	6%	\$ 262	15%	\$ (199)	(76)%
Business insurance	\$ 87	8%	\$ 138	8%	\$ (51)	(36)%
Depreciation	\$ 34	3%	\$ 40	2%	\$ (6)	(15)%
Communications and technology	\$ 37	4%	\$ 93	5%	\$ (56)	(61)%
Office expenses	\$ 28	3%	\$ 92	5%	\$ (64)	(70)%
Other	\$ 30	3%	\$ 72	4%	\$ (42)	(58)%
<b>Total</b>	<b>\$ 1,041</b>	<b>100%</b>	<b>\$ 1,720</b>	<b>100%</b>	<b>\$ (690)</b>	<b>(40)%</b>



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	Nine Months Ended	% of Expense	Nine Months Ended	% of Expense	Increase (Decrease)	
	June 30, 2009	Category	June 30, 2008	Category	\$	%
Professional/outside services	\$ 1,699	46%	\$ 1,437	29%	\$ 262	18%
Recruiting	\$ 32	1%	\$ 233	5%	\$ (201)	(86)%
Patent expense	\$ 600	16%	\$ 1,171	24%	\$ (571)	(49)%
Facilities and related	\$ 219	6%	\$ 209	4%	\$ 10	5%
Travel	\$ 348	9%	\$ 525	11%	\$ (177)	(34)%
Business insurance	\$ 317	8%	\$ 394	8%	\$ (77)	(20)%
Depreciation	\$ 107	3%	\$ 128	3%	\$ (20)	(16)%
Communications and technology	\$ 158	4%	\$ 237	5%	\$ (80)	(34)%
Office expenses	\$ 133	4%	\$ 268	5%	\$ (135)	(50)%
Other	\$ 91	2%	\$ 295	6%	\$ (204)	(69)%
<b>Total</b>	<b>\$ 3,704</b>	<b>100%</b>	<b>\$ 4,897</b>	<b>100%</b>	<b>\$ (1,193)</b>	<b>(24)%</b>

Professional/outside services include general legal, accounting 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. Included in this category is the cost of raising additional financing for the Company which was and is a major activity in fiscal 2009.

Recruiting expense was higher in the prior year due to the recruiting fees and relocation fees to hire a CEO for Calando and a polymer chemist for Unidym. The current year expense results primarily from relocation costs and interim living expenses of an Arrowhead senior executive. Recruiting fees may be incurred in the near future in connection with the search for a Chief Financial Officer for the Company.

Patent expense decreased as a result of Arrowhead hiring a Chief Patent Officer to manage the patent portfolio and as a result of decreased patent activity by Calando and Unidym. Certain Calando patents that are not being utilized were returned to Caltech which reduced the ongoing patent expense. 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.

The increase in facilities and related expense during the three months and nine months ended June 30, 2009, compared to the prior period, reflects the rent increases for office space in Pasadena and New York. Arrowhead's New York office was closed on April 1, 2009. The Company is obligated to pay the base rent on the office through the lease term, but expects to realize savings related to salary and incidental expenses previously incurred by the operation of the New York office. Facilities expense related to the Arrowhead corporate office and the New York office has been allocated to G&A and facilities expense related to the subsidiaries has been allocated to R&D.

Travel expense includes recurring expenses related to travel by the Company as management travels to and from Company locations in Pasadena and Northern California and Houston, Texas. Travel expense is also incurred as Company management pursues business initiatives and collaborations throughout the world with other companies and for marketing, investor relations, fund raising and public relations. The expenses for the fiscal year to date are consistent with prior period as travel expense decreased in the most recent quarter. Travel expense fluctuates from quarter to quarter depending on current projects. This expense is expected to decrease in comparison to the prior year as a result of the recent reductions in headcount and closure of Unidym's Houston, Texas operations.

Insurance expense has decreased due to generally lower rates in insurance markets and a steep reduction in coverage for clinical trials with the termination of the Phase 2 clinical study for IT-101. This expense is expected to fluctuate but eventually decrease as a result of changes in the market and the status of clinical trials and the reduction in number of facilities at Unidym requiring insurance.

The decrease in office expense and communications and technology expense is primarily related to the closing of the Texas facility and to the reduction in employees.

**Research and Development Expenses**



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The Company incurred R&D expenses during the three months and nine months ended June 30, 2009 related to research and development activities by Arrowhead's subsidiaries. Currently, Arrowhead owns positions in two majority-owned subsidiaries, two wholly-owned subsidiaries and two minority investments, each focused on development and commercialization of nanotechnology products or applications. The Company also expensed \$1.67 million to purchased in-process R&D in connection with the acquisition of Unidym stock from minority stockholders of Unidym.

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The following tables details R&D expenses for the three months and nine months ended June 30, 2009 and 2008.

**For the three months ended June 30, 2009 and 2008**

(in thousands)

	Three Months	% of	Three Months	% of	Increase (Decrease)	
	Ended June 30, 2009	Expense Category	Ended June 30, 2008	Expense Category	\$	%
Outside labs & contract services	\$ 261	10%	\$ 1,368	38%	\$ (1,107)	(81)%
License, royalty & milestones	\$ 40	2%	\$ 785	22%	\$ (745)	(95)%
Purchased in process research & development	\$ 1,661	66%	\$ 550	15%	\$ 1,111	202%
Laboratory supplies & services	\$ 17	1%	\$ 357	10%	\$ (340)	(95)%
Facilities and related	\$ 359	14%	\$ 263	7%	\$ 96	37%
Sponsored research	\$ 50	2%	\$ 143	4%	\$ (93)	(65)%
Depreciation-R&D-related	\$ 131	5%	\$ 124	3%	\$ 7	6%
Other research expenses	\$ 0	0%	\$ 31	1%	\$ (31)	(100)%
<b>Total</b>	<b>\$ 2,519</b>	<b>100%</b>	<b>\$ 3,621</b>	<b>100%</b>	<b>\$ (1,102)</b>	<b>(30)%</b>

**For the nine months ended June 30, 2009 and 2008**

(in thousands)

	Nine Months	% of	Nine Months	% of	Increase (Decrease)	
	Ended June 30, 2009	Expense Category	Ended June 30, 2008	Expense Category	\$	%
Outside labs & contract services	\$ 3,767	48%	\$ 2,969	41%	\$ 798	27%
License, royalty & milestones	\$ 413	5%	\$ 952	13%	\$ (539)	(57)%
Purchase in process research & development	\$ 1,661	21%	\$ 550	8%	\$ 1,111	202%
Laboratory supplies & services	\$ 268	3%	\$ 811	11%	\$ (543)	(67)%
Facilities and related	\$ 1,022	13%	\$ 746	10%	\$ 276	37%
Sponsored research	\$ 170	2%	\$ 679	9%	\$ (509)	(75)%
Depreciation-R&D-related	\$ 404	5%	\$ 349	5%	\$ 55	16%
Other research expense	\$ 253	3%	\$ 184	3%	\$ 69	38%
<b>Total</b>	<b>\$ 7,958</b>	<b>100%</b>	<b>\$ 7,240</b>	<b>100%</b>	<b>\$ 718</b>	<b>10%</b>

The dramatic decrease in outside labs & contract services for the third quarter of fiscal 2009 was a result of the decision to close the IT-101 clinical trials in connection with the agreement with Cerulean for further development of IT-101, the advanced stage of the Phase I clinical study for CALAA-01 and the suspension of development efforts for CALAA-02. During the first quarter of fiscal 2009, the process development and preclinical expenses for Calando's drug candidate CALAA-02, together with the clinical trial expenses for CALAA-01 (Phase I) and IT-101 (Phase I and II) total approximately \$1.96 million. During the second quarter of fiscal 2009, those same expenses totaled approximately \$600,000 compared to \$60,000 in the same period in the prior year. Current year expenses include the preclinical studies and manufacture of components for CALAA-02. The current year to date outside lab & contract services expense also included approximately \$153,000 attributable to Agonn's prototype development efforts. During the same quarter in the prior year, Calando's outside labs & contract services expense included approximately \$60,000 for outsourced preclinical studies in preparation for an Investigational New Drug application by Calando, and outsourced manufacture of Calando's therapeutic candidate for clinical studies and \$149,000 for Tego's beginning operations. With the decision to limit Calando operations and to license the drug delivery platforms, the cost related to outside labs and contract services should continue to drop in subsequent quarters. Expense related to the Phase 1 clinical trial for CALAA-01 was \$500,000 for the first three quarters of fiscal 2009. Calando expects to incur limited expenses to complete the CALAA-01 trial and seek an appropriate development partner.

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Purchased In Process R&D results from the non-cash expense of \$1,661,000 related to the exchange of approximately 3.4 million shares of Company Common Stock in exchange for an equal number of shares of Unidym Preferred Stock. The purchased in-process research and development expense equals the estimated fair value of the Arrowhead stock issued to purchase Unidym shares from Unidym's minority shareholders. Arrowhead's purchase of the Unidym shares is accounted for as an additional investment in subsidiaries by Arrowhead. However, the additional investment by Arrowhead does not result in a corresponding increase in Unidym's asset or capital accounts. The additional investment is expensed in consolidation as purchased in-process research and development in accordance with FIN 4. This determination was made in light of the risks inherent in the technical development and the uncertainty of acceptance of Unidym's products.

Unidym's R&D expenses are also declining as a result of streamlining its R&D effort and the closure of its production facility in Texas. Unidym continues to focus on the production and sale of CNT based inks and is seeking to establish partnerships for both CNT production and coating of film. Outside laboratory & contract services expenses will continue to fluctuate depending upon where a particular project is in its development, approval or trial process.

Licensing fees, milestones & royalties consist primarily of amounts incurred by Unidym under the terms of its license agreement with Rice University and Calando for the license for siRNA targets from Alnylam.

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Laboratory supplies and services consist primarily of materials, supplies and services consumed in the laboratory. With the closing of Calando's lab and the scale down of Unidym operations, this expense is expected to dramatically decrease going forward. Facilities related expenses increased for nine months ended June 30, 2009 over the prior year period due primarily to the addition of facilities in Houston, TX and in Sunnyvale, CA for Unidym. Relocation of the Menlo Park operations to the larger Sunnyvale, CA location is complete and both leases for facilities in Texas have been terminated. The Calando laboratory facility was closed on June 30, 2009. Facility related expenses are expected to decrease as a result of the reduction in the number of leased facilities.

Sponsored research expense decreased for the three months and nine months ended June 30, 2009, compared to the same period for the prior year, as projects were completed (University of Florida) or terminated (Caltech). No new research projects were added during the nine months ended June 30, 2009. The only sponsored research agreement currently in place is Unidym's agreement with Duke University.

Increased depreciation expense is primarily due to the addition of depreciable equipment at Unidym's Sunnyvale facility resulting from the purchase of Nanoconduction in August of 2008.

The table below sets forth the approximate amount of Arrowhead's cash expenses for research and development at each subsidiary for the periods described below.

Name of Subsidiary / Project	Project cash expenses for the Three Months Ended June 30, 2009	Project cash expenses for Nine Months Ended June 30, 2009	Project cash expenses from inception of Project through June 30, 2009
Calando Pharmaceuticals, Inc. / CALAA-01 & IT 101	\$ 1.6 Million	\$ 4.1 Million	\$ 39.1 Million
Unidym, Inc. / Thin Film CNTs	\$ 0.8 Million	\$ 5.6 Million	\$ 24.5 Million
Tego Biosciences Corp. / Fullerene Anti-oxidants	\$ 0.0 Million	\$ 0.1 Million	\$ 0.9 Million
Agonn Systems, Inc. / CNT based ultracapacitors	\$ 0.2 Million	\$ 0.2 Million	\$ 0.6 Million
Total of all listed subsidiaries	\$ 2.6 Million	\$ 10.0 Million	\$ 65.1 Million

**Consulting**

During the three months ended June 30, 2009, consulting fees and related travel totaled approximately \$406,000 compared to \$902,000 the same period in the prior year. Included in consulting fees for the current three month period is \$292,000 for Calando, \$83,000 for Unidym and \$25,000 for Arrowhead.

The consulting fees incurred by Calando consisted of \$172,000 and \$757,000 for clinical and regulatory consulting fees during the three months and nine months ended June 30, 2009 compared to \$299,000 and \$744,000 for similar items in the same period in the prior year, respectively. The current year consulting expense is for administration of the various clinical trials in process and the prior year expenses relate to preclinical research, preparation for the filing of its Investigational New Drug application (INDA) with the FDA.

The consulting fees incurred by Unidym consisted of \$83,000 for consulting related to the process to manufacture sheets of thin film nanotubes and performance testing of those sheets. For the same period in the prior year, there was approximately \$221,000 of consulting fees incurred in similar projects.

**Leveraged Technology and Revenue Strategy**

Arrowhead continues to pursue its strategy of leveraging technology that is being or has been developed at universities. By doing so, Arrowhead benefits from work done at those universities and through majority-owned subsidiaries, which are seeking to commercialize the most promising technologies developed from sponsored research and other sources. The subsidiaries are likely to produce prototypes to advance their strategies. The subsidiaries have three primary strategies to potentially generate product sales revenue:

License the products and processes to a third party for a royalty or other payment. By licensing, the Company would not be required to allocate resources to build a sales or production infrastructure and could use those resources to develop additional products.

Retain the rights to the products and processes, but contract with a third party for production. The Company would then market the finished products. This approach would require either the establishment of a sales and distribution network or collaboration with a supplier who has an established sales and distribution network, but would not require investment in production equipment.

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Build production capability in order to produce and market the end products. This last approach would likely require the most capital to build the production, sales and distribution infrastructure.

On a case-by-case basis, the Company and each subsidiary will choose the strategy which, in the opinion of management, can be supported by available capital resources and is likely to generate the most favorable return.

On April 20, 2007, through the merger with CNI, Unidym acquired the production capability to make CNTs. These CNTs were used for product development and sold externally to third parties. In the third quarter of fiscal 2009, Unidym entered into an agreement with a partner to transfer the assets related to CNT manufacturing and expects to enter into a license and supply agreement in the near term. Revenue from sales of CNTs is expected to decrease and eventually cease and revenue from sales of other products to commence in the near term. Prior to this merger, the only revenue generated by the Company was through grants from public and private entities and through licensing deals. While the ultimate goal of the Company is to generate revenue through the sale of products and/or the licensing of technology, the Company does record revenue from license fees, grants and from development fees. Revenue from grants and development fees are considered to be reimbursements for efforts performed on behalf of third parties and not part of the Company's primary strategy to generate revenue.

The Company does not expect substantial product sales in fiscal 2009. Therefore, cumulative losses can be expected to increase before any substantial revenue is generated. To partially offset these losses, the Company is pursuing other means of funding such as licenses, contracts and collaborations with third parties. The award of such grants and contracts depends on numerous factors, many of which are not in the Company's control and, therefore, it is difficult to predict if this strategy will be successful.

## **Liquidity and Capital Resources**

### ***Cash Flow Position***

Since inception in May 2003, the Company has incurred significant losses. Cash and cash equivalents decreased during the quarter by \$1.7 million to \$1.9 million from \$3.6 million at March 31, 2009. It is anticipated that cash consumption will decrease sequentially over subsequent quarters unless additional cash resources are obtained by Arrowhead and its subsidiaries. The Company invests available cash in certificates of deposit, U.S. government obligations and high grade commercial paper. The Company's investment objectives are primarily to preserve capital and liquidity and secondarily to obtain investment income.

The Company has historically financed its operations through the sale of securities of Arrowhead and its subsidiaries. During the first quarter of fiscal 2009, Unidym sold its equity interest in Ensysce for \$700,000 in cash. During the nine months ended June 30, 2009, Calando raised an additional \$2.5 million through an offering of senior unsecured convertible promissory notes. Arrowhead purchased \$800,000 of the notes, and Unidym raised \$2 million through the sale of newly issued shares of Series C-1 to TEL Ventures. In addition to the \$2 million of Series C-1 issued to TEL Ventures, as of June 30, 2009, Arrowhead purchased \$2,150,002 of the Series C-1 Preferred Stock. Net cash from financing activities totaled \$16.1 million in fiscal 2008 for Arrowhead and its subsidiaries. Arrowhead invested \$2.0 million in Nanotope in fiscal 2008.

The Company has an effective shelf registration statement on file with the SEC covering the public sale by the Company of up to approximately \$35 million in Common Stock and Warrants.

The Company's Board of Directors approved a strategy for the Company to conserve cash and seek sources of new capital. While the Company has made significant reportable progress on its cash conservation efforts and has entered some partnership agreements, the Company will still need to consummate one or more of the following to bring additional cash for operations into the Company and its subsidiaries: the out-license of technology, sale of a subsidiary, funded joint development or partnership arrangements and sale of securities. In light of the lack of liquidity in the current capital and credit markets, the probability that any of these events will occur is uncertain. Until such time as one or more of these goals is accomplished, Arrowhead has supported steps to scale back the activities of its subsidiaries. If we are unable to raise needed capital through any of these means, we may be forced to curtail or cease operations at the Company or one or more of the subsidiaries. *See Note 1 regarding our ability to continue as a Going Concern.*

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

The Company does not have and has not had any off-balance sheet arrangements or relationships.

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

Disclosure not required as a result of the Company's status as a smaller reporting company.



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### **ITEM 4. DISCLOSURE 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 15-d-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, have concluded that as of June 30, 2009, 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, these controls subsequent to the date this evaluation was carried out.

Given the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, will be detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Further, the design of a control system must

reflect the fact that there are resource constraints, and that benefits of controls must be considered relative to their costs. The design of any system of controls is also based in part on certain assumptions regarding the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

## **PART II OTHER INFORMATION**

### **ITEM 1. LEGAL PROCEEDINGS.**

None.

### **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 our current stage of development.

#### **Risks Related to Our Financial Condition**

*We do not have sufficient cash reserves to fund our activities at their current pace for the next fiscal year.*

Our plan of operations is to provide substantial amounts of development funding and financial support for our majority-owned subsidiaries over an extended period of time. Our Board of Directors adopted a cash conservation strategy that scaled back our financial support for our majority owned subsidiaries, Unidym, Inc. and Calando Pharmaceuticals, Inc. This has influenced Unidym's decision to engage partners for its capital-intensive bulk CNT manufacturing and concentrate its resources on its CNT inks and CNT-based film products. Calando's Board of Directors has determined to partner future development efforts for its drug delivery platforms and clinical candidates. We will need to obtain additional capital in the near term to support our projects, and we may plan to do so 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 be required to implement additional cash saving measures by limiting further activities at Unidym, or at the Company, which could materially harm our business and our ability to achieve 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.

*A substantial portion of Unidym's intellectual property is licensed from Rice University and the Rice license includes an insolvency provision.*



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Through its merger with Carbon Nanotechnologies, Inc. ( CNI ), Unidym acquired a license to certain intellectual property from Rice University. Under the license, Unidym must meet a solvency test in order to retain the rights to the licensed technology. Although Unidym is not insolvent at this time, if Unidym does not obtain additional capital, it is likely that it would become insolvent and the Rice license would be subject to potential termination. If the Rice license terminates, Unidym would lose exclusivity in the fields of use covered by the Rice license and its business would be materially and irrevocably harmed. In this case, the likelihood that the Company would realize any return on its investment in Unidym would be substantially diminished, if not eliminated entirely. This would likely materially and irrevocably harm the value of the Company.

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Neither the Company nor our subsidiaries generate substantial revenue, and, to date, our operations, research and development activities have been primarily funded through the sale of Company securities and securities of our subsidiaries. Current market conditions are likely to 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 at Unidym. In addition, we may have to make additional cuts in expenses at the Company, which could impair our ability to manage our business and our subsidiaries. If investment capital is available to us, in the current market the terms may be onerous. If investment capital is needed and available to Unidym and the Company does not have the funds to make a pro rata investment, our ownership interest could be significantly 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. Due to the current economic crisis, companies are adopting conservative acquisition strategies and, even if there is interest, may not be able to acquire our subsidiaries on attractive terms, if at all. These factors could reduce the realizable return on our investment if we are able to sell a subsidiary. Additionally, the market for IPOs is severely limited, which limits public exit opportunities for our subsidiaries.

***Our business may be harmed if we cannot maintain our listing on the NASDAQ Capital Market.***

To maintain our listing on the NASDAQ Capital Market we must satisfy certain minimum financial and other continued listing standards, including, among other requirements, (i) a \$1.00 minimum bid price requirement and (ii) a \$2.5 million minimum stockholders' equity requirement, \$500,000 minimum net income requirement or \$35 million minimum market value of listed securities requirement. As of August 8, 2009, the bid price of our Common Stock was \$0.43 per share and our market value for listed securities was approximately \$22 million. Further, as reported in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2009, at March 31, 2009 our stockholders' equity was \$406,071 and our net loss was \$28 million for the fiscal year ended September 30, 2008. We previously received a notice of non-compliance from NASDAQ regarding our stockholders' equity. At June 30, 2009, our stockholders' equity was \$3.7 million which exceeds the NASDAQ requirement; however, it is possible that NASDAQ may decide our stockholders' equity is insufficient for continued compliance. In addition, we may face deficiencies in our stockholders' equity in the future and if we cannot resolve such deficiencies, our Common Stock could be delisted from the NASDAQ Capital Market. As of July 31, 2009, NASDAQ reinstated the \$1.00 minimum bid requirement for continued listing. As a result, we may need to effect a reverse stock split to get our stock price over \$1.00. There is no assurance that such a reverse stock split would be effective and stockholders may suffer a decline in value of their shares as many stocks do not trade at or above the implied post-split price.

In addition, because of cash constraints, we may have to go dark and stop filing reports with the SEC. If we stop filing reports with the SEC, that would negatively affect our stockholders' ability to sell their shares, including the shares being sold in our recent offering. In addition, we would be under breach of certain agreements if we stop filing reports with the SEC, which would expose us to potential legal action.

If our Common Stock is delisted by, or we voluntarily delist from, NASDAQ, our Common Stock may be eligible to trade on the OTC Bulletin Board or the Pink OTC Markets. In such an event, it could become more difficult to dispose of, or obtain accurate quotations for the price of our Common Stock, and there would likely also be a reduction in profile in the investment community and the news media, which could cause the price of our Common Stock to decline further.

As a consequence, our inability to maintain our listing on NASDAQ could also adversely affect our ability to obtain financing for the continuation of our operations and could result in a loss of confidence by investors, suppliers and employees. In addition, our stockholders' ability to trade or obtain quotations on our shares could be severely limited because of lower trading volumes and transaction delays. These factors could contribute to lower prices and larger spreads in the bid and ask price for our Common Stock.

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

**Unidym.** We have debt on our consolidated balance sheet, including a capital lease obligation acquired in connection with Unidym's acquisition of Nanoconduction, Inc. As of June 30, 2009, the capital lease obligation requires us to pay a total of \$979,000 in 13 monthly payments of \$75,000 each for capital equipment at Unidym's Sunnyvale, California location and the equipment itself serves as collateral for the debt. Unidym's ability to make payments on its indebtedness will depend on its ability to conserve the cash that it has on hand and to generate cash in the future. Neither Unidym nor the Company currently generates significant revenue. Because Unidym does not currently have a substantial amount of cash on hand, Unidym might be required to divert cash from development activities or to generate cash via debt or equity financing to be able to meet the monthly payment requirements under the capital lease obligation. This, to some extent, is subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control. Also, given the current economic climate, financing

options might be limited going forward,

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which could prevent Unidym from obtaining the necessary funds to pay its indebtedness when due. Because the equipment serves as collateral for the debt, if Unidym is unable to make the monthly payments when due, the lessor of the equipment, at its discretion, may seize the equipment and Unidym would not be able to use the equipment in its development activities.

**Calando.** Calando has a \$500,000 unsecured convertible promissory note outstanding. The note bears 10% interest accrued annually and has a two-year maturity. The note is also payable at two times face value in certain events, including, among other things, the license of Calando's siRNA delivery system. Following maturity, the note becomes payable on demand. If Calando is unable to meet its obligations to the bearer of the note after maturity, we 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.

***The costs to fund the operations of our subsidiaries are difficult to predict, and our anticipated expenditures in support of our subsidiaries may increase or decrease for a variety of reasons.***

Development, manufacturing and sale of cost-effective electronic products incorporating carbon nanotubes may require significant additional investment and take a long time. It is possible that the development and scale up of Unidym's carbon nanotube manufacturing effort and its development and scale up of its transparent conductive film products could be delayed for a number of reasons, including unforeseen difficulties with the technology development and delays in adoption of the technology by customers. Any delay would result in additional unforeseen costs, which would harm our results of operations. Due to these uncertainties, we cannot reasonably estimate the size, nature or timing of the costs to complete the development of Unidym's products or net cash inflows from Unidym's current activities.

***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 Rice University, 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 a new business venture.***

The implementation of our business strategy is still in the development stage. We currently own majority interests in four subsidiary companies, investments in two early stage biotech companies and, through Unidym, one university research project at Duke University. 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 cash conservation strategy that scales back our financial support for Calando at this time, Calando has embarked on a phase down of its operations 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.

***If Calando licenses its technologies, it will lose a considerable amount of control over its intellectual property and may not receive adequate licensing revenues in exchange.***

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

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Cerulean Pharma, Inc. and intends to pursue further licensing arrangements with other companies. As Calando licenses its technology to other companies, it will lose control over certain of the technologies it licenses and will be unable to significantly direct the commercialization of its technologies. In addition, Calando's licensees may not be successful in the further commercialization of Calando's technologies and anticipated revenues from such license agreements may be less than expected or may not be paid at all.

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***There are substantial inherent risks 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 an extremely 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. For example, our scientists must determine how to design and develop nanotechnology applications for potential products designed by third parties for use in cost-effective manufacturing processes. 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. If our research efforts are successful on the technology side, it could take at least several years before this technology will be commercially viable. During this period, superior competitive technologies may be introduced or customer needs may change, which will diminish or extinguish the commercial uses for our applications. Because nanotechnology is an emerging field, the degree to which potential consumers will adopt nanotechnology-enabled products is uncertain. We cannot predict when significant commercial market acceptance for nanotechnology-enabled products will develop, if at all, and we cannot reliably estimate the projected size of any such potential market. If markets fail to accept nanotechnology-enabled 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 original equipment manufacturers and customers, 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, 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 attendant 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

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.

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The occurrence of any of the above risks 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 Unidym and 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 Unidym and Calando to maintain a controlling interest.

***Nanotechnology-enabled products are new and may be viewed as being harmful to human health or the environment.***

There is public concern regarding the human health, environmental and ethical implications of nanotechnology that could impede market acceptance of products developed through these means. Nanotechnology-enabled products could be composed of materials such as carbon, silicon, silicon carbide, germanium, gallium arsenide, gallium nitride, cadmium selenide or indium phosphide, which may prove to be unsafe or harmful to human health or to the environment because of the size, shape or composition of the nanostructures. For this reason, these nanostructures may prove to present risks to human health or the environment that are different from and greater than the better understood risks that may be presented by the constituent materials in non-nanoscale forms. Because of the potential, but at this point unknown, risks associated with certain nanomaterials, government authorities in the U.S. or individual states, and foreign government authorities could, for social or other purposes, prohibit or regulate the use of some or all nanotechnologies. The U.S. Environmental Protection Agency has in that regard recently taken steps towards regulation of the manufacture and use of certain nanotechnology-enabled materials, including those containing carbon nanotubes or nanosilver. Further, the U.S. National Academy of Sciences/National Research Council concluded that the U.S. government needs to develop a more robust and coordinated plan for addressing the potential environmental, health, and safety risks of nanomaterials. The regulation and limitation of the kinds of materials used in or used to develop nanotechnology-enabled products, or the regulation of the products themselves, could halt or delay the commercialization of nanotechnology-enabled products or substantially increase the cost, which will impair our ability to achieve revenue from the license of nanotechnology applications.



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

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 resources than we do. 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.

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### ***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 recent tightening of global credit and the disruption in the financial 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.

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. In addition, we rely on several key executives to manage each of our subsidiaries. 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, sales, marketing 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. Given the Company's current financial constraints, we may need to terminate additional employees, including senior management and technical employees, or such employees may seek other employment. With these and past reductions, it is possible that valuable know-how will be lost 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

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subsidiaries. Specifically, Dr. Anzalone, our CEO and President, is the founder, CEO and a board member of each of Nanotope, Inc. ( Nanotope ), a regenerative medicine company that is separately financed in which the Company owns a 22% interest, and Leonardo Biosystems, Inc. ( LBS ), a drug delivery company that is separately financed in which the Company owns a 6% interest. Dr. Anzalone owns a minority interest in the stock of each of Nanotope and LBS. 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.

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

Our subsidiaries, Calando and Tego Biosciences Corporation, as well as minority investments Nanotope and LBS, 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 are not acceptable, 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, did not approve our potential product for the intended use; and

manufacturing and distribution is 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. 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, Tego and our minority investments Nanotope and LBS 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 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 minority interests were the result of negotiation with subsidiary management and equity holders, and the investment valuations were not 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 there exist comparable public companies to provide a meaningful valuation comparison. Accordingly, we have 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 lower or higher than previously determined by us, which could materially and adversely impair the value of our Common Stock.



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### **Risks Related to Our Intellectual Property**

#### ***If Unidym is unable to raise additional cash or pay its debts, Unidym may lose rights to critical intellectual property.***

Unidym is required to meet certain financial covenants pursuant to the Rice University license agreement Unidym acquired upon its acquisition of CNI. When Unidym acquired CNI, CNI possessed intellectual property rights concerning carbon nanotubes that it had licensed from Rice University. The Rice license includes financial covenants tested quarterly for compliance. If Unidym fails to meet the financial covenants, the Rice license automatically terminates. If this should happen, the value of Unidym's intellectual property portfolio would be significantly and adversely affected and Unidym would likely lose patent protection for its products and licensing opportunities for the majority of its CNT intellectual portfolio.

#### ***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. There can be no assurance 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. There can also be no assurance 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 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, Rice University, 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.



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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 assure you 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 70,000,000 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 August 8, 2009, 55,400,230 shares of Common Stock and no shares of preferred stock were issued and outstanding. As of August 8, 2009, 1,529,000 shares and 3,354,588 shares were reserved for issuance upon exercise of options granted under our 2000 Stock Option Plan, (the 2000 Plan ), and 2004 Equity Incentive Plan, (the 2004 Plan ), respectively, taking into consideration the decrease in the reserve for the 2004 Plan approved by the Board of Directors in order to make available sufficient stock for issuance in the Private Placement. As of August 2009, we had warrants outstanding to purchase 15,170,495 shares of Common Stock, including warrants to purchase 9,196,644 shares of Common Stock issued in the July 2009 Private Placement (exercisable for Preferred Stock if sufficient authorized Common Stock is not available) and warrants to purchase 5,973,851 shares of Common Stock. All of the warrants are callable by us under certain market conditions. We will need to seek stockholder approval to increase the authorized shares of Common Stock under our certificate of incorporation. If we do not receive stockholder approval, we may not be able to raise additional capital. Any increase in authorized shares of Common Stock approved by our stockholders, together with the issuance of additional securities in financing transactions by us or through the exercise of options or warrants would 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, our securities are currently relatively thinly traded. Our current solvency concerns could serve to exacerbate the thin trading of our securities. 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 as a result of the solvency concerns. 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. Moreover, our stock price has generally been declining for the last 24 months.

***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.



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*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. 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. Additionally, because we are effectively out of authorized by unissued common stock, we may be forced to issue preferred stock in future capital raising transactions. As a result, the issuance of the preferred stock could have a material adverse effect on the price of our Common Stock and could make it more difficult for a third party to acquire a majority of our outstanding 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 or reported under Item 5 of this Form 10-Q.

### **ITEM 3. DEFAULTS UPON SENIOR SECURITIES.**

None.

### **ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS.**

None

### **ITEM 5. OTHER INFORMATION.**

#### **Item 1.01 and Item 3.02**

As previously reported on our Current Report on Form 8-K filed on July 17, 2009 and as reported on this Form 10-Q, on August 6, 2009, the Company sold an additional 3,009,143 units, for an aggregate of 9.2 million units, in a private placement transaction with institutional and accredited investors. Each unit consisted of one share of Company's common stock, \$0.001 par value per share, at a price of \$0.30 per share, and a warrant to purchase an additional share of Common Stock exercisable at \$0.50 per share. The warrants become exercisable on February 6, 2010 and remain exercisable until June 30, 2014, unless redeemed earlier as permitted. The warrants may be redeemed for nominal consideration if the Company's common stock trades above \$1.20 for at least 30 trading days in any 60-trading day period. Gross proceeds of the total offering totaled approximately \$2.76 million.

The shares and warrants were offered and sold only to accredited investors in reliance on Section 4(2) of the Securities Act of 1933, as amended (the Securities Act), and Rule 506 promulgated there under. The shares and warrants sold in the private placement have not been registered under the Securities Act or state securities laws and may not be offered or sold in the United States absent registration with the Securities and Exchange Commission or an applicable exemption from the registration requirements. The Company has agreed to file a registration statement with the Securities and Exchange Commission covering the resale of the Shares and the shares of Common Stock issuable upon exercise of the Warrants.

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A copy of the forms of Subscription Agreement and Warrant and a copy of the Registration Rights Agreement were previously filed with our Current Report on Form 8-K filed on July 17, 2009. Each of the foregoing exhibits is incorporated by reference and the description of each of the foregoing documents contained in the Current Report on Form 8-K is qualified in its entirety by reference to such documents.

### ITEM 6. EXHIBITS.

<b>Exhibit Number</b>	<b>Document Description</b>
3.1	Certificate of Incorporation of InterActive, Inc., dated December 15, 2000 (1)
3.2	Certificate of Amendment of Certificate of Incorporation of InterActive Group, Inc., dated December 12, 2003 (2)
3.3	Certificate of Amendment to Certificate of Incorporation of Arrowhead Research Corporation, dated January 25, 2005 (3)
3.4	Bylaws (1)
4.1	Form of Warrant to Purchase Common Stock issued January 24, 2006 (5)
4.2	Form of Warrant to Purchase Common Stock issued May 21, 2007 (6)
4.3	Form of Common Stock Warrant issued issued in August 2008 (7)
4.4	Form of Common Stock Warrant issued in September 2008 (8)
4.5	Form of Warrant to Purchase Capital Stock expiring June 30, 2014 (4)
4.6	Registration Rights Agreement between Arrowhead and certain investors, dated July 17, 2009 and August 6, 2009 (4)
10.1	Platform Agreement, dated as of June 23, 2009, by and between Calando Pharmaceuticals, Inc. and Cerulean Pharma Inc.*
10.2	IT-101 Agreement, dated as of June 23, 2009, by and between Calanda Pharmaceuticals, Inc. and Cerulean Pharma, Inc.*
10.3	Form of Subscription Agreement dated July 17, 2009 (4)
10.4	IP Transfer and Waiver Agreement, dated as of June 25, 2009, by and between Unidym, Inc. and TEL Venture Capital*

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<b>Exhibit Number</b>	<b>Document Description</b>
10.5	Subscription Agreement, dated as of June 25, 2009, by and between Arrowhead Research Corporation and Unidym, Inc.*
10.6	Exchange Agreement, dated as of June 25, 2009, by and between Arrowhead Research Corporation and TEL Venture Capital*
10.7	Subscription Agreement, dated as of July 30, 2009, by and between Arrowhead Research Corporation and Unidym, Inc.*
31.1	Section 302 Certification of Chief Executive Officer*
31.2	Section 302 Certification of Chief Financial Officer *
32.1	Section 1350 Certification by Principal Executive Officer*
32.2	Section 1350 Certification by Principal Financial Officer*

\* Filed herewith

Confidential treatment has been requested with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.

- (1) Incorporated by reference from the Schedule 14C filed by the registrant on December 22, 2000.
- (2) Incorporated by reference from the Schedule 14C filed by the registrant on December 22, 2003.
- (3) Incorporated by reference from the Quarterly Report on Form 10-QSB filed by the registrant on February 11, 2005.
- (4) Incorporated by reference from the Current Report on Form 8-K filed by the registrant on July 17, 2009.
- (5) Incorporated by reference from the Current Report on Form 8-K filed by the registrant on January 18, 2006.
- (6) Incorporated by reference from the Current Report on Form 8-K filed by the registrant on May 30, 2007.
- (7) Incorporated by reference from the Current Report on Form 8-K, filed by the registrant on August 26, 2008.
- (8) Incorporated by reference from the Current Report on Form 8-K, filed by the registrant on September 11, 2008.

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**SIGNATURES**

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: August 10, 2009

ARROWHEAD RESEARCH CORPORATION

By: /s/ PAUL C. McDONNELL  
Paul C. McDonnell  
Chief Financial Officer