Table of Contents

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)

Delaware	**46-0408024**
(State of incorporation)	**(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 ☐	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.

Table of Contents

Table of Contents

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

	(unaudited) June 30, 2009	September 30, 2008
ASSETS		
CURRENT ASSETS		
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
TOTAL CURRENT ASSETS	2,754,753	10,561,117
PROPERTY AND EQUIPMENT		
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)
NET PROPERTY AND EQUIPMENT	617,360	1,245,210
INTANGIBLE AND OTHER ASSETS		
Rent deposit	117,614	254,289
Patents, *Note 1*.	2,441,366	2,749,555
Investment in Nanotope Inc., equity basis, *Note 4*.	2,080,557	2,258,271
Investment in Leonardo Biosystems Inc., at cost	187,000	187,000
TOTAL OTHER ASSETS	4,826,537	5,449,115
TOTAL ASSETS	$ 8,198,650	$ 17,255,442
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES		
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, *Note 10.*	860,401	810,456
TOTAL CURRENT LIABILITIES	3,409,782	3,726,299
LONG-TERM LIABILITIES		
Notes payable, *Note 6.*	500,000	—
Capital lease obligation—long term, *Note 10.*	74,845	726,534
Accrued severance, *Note 11*.	—	500,000
TOTAL LONG-TERM LIABILITIES	574,845	1,226,534
Minority interests	—	—
Unidym Series C-1 Preferred Stock with liquidation preference and put option, *Note 7*.	500,000	—
Commitment and contingencies, *Note 11*.		
STOCKHOLDERS' EQUITY, *Note 8.*		
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)
TOTAL STOCKHOLDERS' EQUITY	3,714,023	12,302,609
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 8,198,650	$ 17,255,442

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
REVENUE, *Note 1*	**$ 2,633,191**	**$ 235,372**	**$ 3,570,564**	**$ 1,362,999**	**$ 7,320,056**
OPERATING EXPENSES					
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
TOTAL OPERATING EXPENSES	**4,956,951**	**10,131,954**	**19,785,329**	**24,806,589**	**123,599,318**
OPERATING LOSS	(2,323,760)	(9,896,582)	(16,214,765)	(23,443,590)	(116,279,262)
OTHER INCOME (EXPENSES)					
Loss on equity of invesment—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
TOTAL OTHER INCOME (EXPENSES)	**(204,857)**	**115,158**	**366,341**	**691,385**	**5,947,250**
LOSS BEFORE MINORITY INTERESTS	(2,528,617)	(9,781,424)	(15,848,424)	(22,752,205)	(110,332,012)
Minority interests	—	1,994,088	60	4,475,059	15,287,738
LOSS FROM CONTINUING OPERATIONS	**(2,528,617)**	**(7,787,336)**	**(15,848,364)**	**(18,277,146)**	**(95,044,274)**
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)
LOSS FROM DISCONTINUED OPERATIONS	**—**	**285,174**	**—**	**(153,605)**	**(6,300,557)**
NET LOSS	**$ (2,528,617)**	**$ (7,502,162)**	**$ (15,848,364)**	**$ (18,430,751)**	**$ (101,344,831)**
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			
Initial Issuance of Stock:					
Common stock & warrants issued for cash @ $0.001 per unit	3,000,000	$ 3,000	$ —	$ —	$ 3,000
Common stock & warrants issued for cash @ $1.00 per unit	1,680,000	1,680	1,678,320	—	1,680,000
Stock issuance cost charged to additional paid-in capital	—	—	(168,000)	—	(168,000)
Net loss for period from inception to September 30, 2003	—	—	—	(95,238)	(95,238)
Balance at September 30, 2003	**4,680,000**	**4,680**	**1,510,320**	**(95,238)**	**1,419,762**
Exercise of stock options @ $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)
Balance at September 30, 2004	**13,631,546**	**13,645**	**12,059,997**	**(2,624,192)**	**9,449,450**
				—	—
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)
Balance at September 30, 2005	**27,984,194**	**27,997**	**35,578,580**	**(9,479,110)**	**26,127,467**
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)
Balance at September 30, 2006	**34,143,588**	**34,156**	**59,113,369**	**(28,476,319)**	**30,671,206**
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)
Balance at September 30, 2007	**38,610,420**	**38,622**	**84,672,783**	**(58,407,437)**	**26,303,968**
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 Uniym'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)
Balance at September 30, 2008	**42,934,517**	**42,950**	**97,756,126**	**(85,496,467)**	**12,302,609**
Stock-based compensation	—	—	727,934	—	727,934
Net loss for the three months ended December 31, 2008	—	—	—	(8,030,468)	(8,030,468)
Balance at December 31, 2008	**42,934,517**	**42,950**	**98,484,060**	**(93,526,935)**	**5,000,075**
Stock-based compensation	—	—	695,275	—	695,275
Net loss for the three months ended March 31, 2009	—	—	—	(5,289,279)	(5,289,279)
Balance at March 31, 2009	**42,934,517**	**42,950**	**99,179,335**	**(98,816,214)**	**406,071**
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)
Balance at June 30, 2009	**46,203,586**	**46,220**	**105,012,634**	**(101,344,831)**	**3,714,023**

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

Arrowhead Research Corporation and Subsidiaries
(A Development Stage Company)
Consolidated Statements of Cash Flows
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
CASH FLOWS FROM OPERATING ACTIVITIES:			
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
NET CASH (USED) IN OPERATING ACTIVITIES	(12,861,889)	(19,200,980)	(90,676,246)
CASH FLOWS FROM INVESTING ACTIVITIES:			
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
Payment for patents	—	—	(303,440)
Restricted cash	—	—	50,773
NET CASH PROVIDED BY (USED) IN INVESTING ACTIVITIES	762,766	(399,561)	(3,627,692)
CASH FLOWS FROM FINANCING ACTIVITIES:			
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
NET CASH PROVIDED BY FINANCING ACTIVITIES	3,914,723	9,303,924	96,213,123
NET INCREASE (DECREASE) IN CASH	(8,184,400)	(10,296,617)	1,909,185
CASH AT BEGINNING OF PERIOD	10,093,585	24,120,097	
CASH AT END OF PERIOD	$ 1,909,185	$ 13,823,480	$ 1,909,185
Supplementary disclosures:			
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.

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

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 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

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 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

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.

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.

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 $100,591and $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.

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

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 it 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 TELVentures'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.

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.

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 Acquirer'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.

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.

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 $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

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.

(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:

Twelve months ending June 30	Facilities Leases	Equipment Leases
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

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[1]	Technology/Product Focus
Calando Pharmaceuticals, Inc. *acquired June 4, 2004*	67.8%	Nano-engineered RNAi therapeutics and drug delivery systems
Unidym, Inc. (formerly NanoPolaris) *founded April 4, 2005*	67.0%	Commercialization of nanotube-based products for electronic applications
Tego Biosciences Corporation *acquired April 20, 2007*	100.0%	Owner of intellectual property related to protective products based on the anti-oxidant properties of buckministerfullerenes
Agonn Systems, Inc. *founded May 1, 2008*	100.0%	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 85% of Tego. Agonn has not yet adopted an option plan and does not have any outstanding warrants.

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

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

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

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
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

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.

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 form 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.

Commencing on July 6, 2009, to provide executive and financial management and continuity through the transition in light of Mr. McDonnel'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. McDonnel'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.

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 expressions are 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

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 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.

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, 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

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 "RONDEL™"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

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 sublicenses 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 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.

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.

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.

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

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 expect 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.

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

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.

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.

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) $	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 June 30, 2009	% of Expense Category	Nine Months Ended June 30, 2008	% of Expense Category	Increase (Decrease) $	Increase (Decrease) %
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

$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 Ended June 30, 2009	% of Expense Category	Three Months Ended June 30, 2008	% of Expense Category	Increase (Decrease) $	Increase (Decrease) %
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)%
Total	$ 1,041	100%	$ 1,720	100%	$ (690)	(40)%

For the nine months ended June 30, 2009 and 2008

(in thousands)

	Nine Months Ended June 30, 2009	% of Expense Category	Nine Months Ended June 30, 2008	% of Expense Category	Increase (Decrease) $	Increase (Decrease) %
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)%
Total	$ 3,704	100%	$ 4,897	100%	$ (1,193)	(24)%

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

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.

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 Ended June 30, 2009	% of Expense Category	Three Months Ended June 30, 2008	% of Expense Category	Increase (Decrease) $	Increase (Decrease) %
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)%
Total	$ 2,519	100%	$ 3,621	100%	$ (1,102)	(30)%

For the nine months ended June 30, 2009 and 2008

(in thousands)

	Nine Months Ended June 30, 2009	% of Expense Category	Nine Months Ended June 30, 2008	% of Expense Category	Increase (Decrease) $	Increase (Decrease) %
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%
Total	$ 7,958	100%	$ 7,240	100%	$ 718	10%

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 quarter is fiscal 2009. Calando expects to incur limited expenses to complete the CALAA-01 trial and seek an appropriate development partner.

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.

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.

- 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.

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.

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.

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

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,

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 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.

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.

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.

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 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.

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.

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.

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;

- 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.

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.

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.

Exhibit Number	Document Description
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*

Exhibit Number	Document Description
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.

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. MCDONNEL
Paul C. McDonnel
Chief Financial Officer

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT UNDER RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934.

PLATFORM AGREEMENT

THIS PLATFORM AGREEMENT ("Agreement"), dated as of June 23, 2009 (the "Effective Date"), is by and between CALANDO PHARMACEUTICALS, INC., a Delaware corporation having its principal place of business at 129 North Hill Avenue, Pasadena, California 91106 (hereinafter referred to as "Calando"), and CERULEAN PHARMA INC., a Delaware corporation, having its principal place of business at 161 First Street, Cambridge, Massachusetts 02142 (hereinafter referred to as "Cerulean").

INTRODUCTION

WHEREAS, Calando possesses certain proprietary cyclodextrin-based polymer drug delivery systems; and

WHEREAS, Cerulean is engaged in the research, development and commercialization of nanopharmaceuticals and desires to license such drug delivery systems upon the terms and conditions set forth herein;

NOW, THEREFORE, in consideration of the mutual covenants and promises contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Calando and Cerulean agree as follows:

SECTION 1. DEFINITIONS

As used in this Agreement, the following terms, whether used in the singular or plural, shall have the following meanings:

1.1 "Affiliate" means any entity which directly or indirectly controls, is controlled by or is under common control with another entity. For purposes of this Section 1.1, "control" means (a) in the case of corporate entities, direct or indirect ownership of at least fifty percent (50%) of the stock or shares entitled to vote for the election of directors and (b) in the case of non-corporate entities, direct or indirect ownership of at least fifty percent (50%) of the equity interest with the power to direct the management and policies of such non-corporate entities. The Parties acknowledge that, in the case of certain entities organized under the laws of certain countries, the maximum percentage ownership permitted by law for a foreign investor may be less than fifty percent (50%), and in such case such lower percentage shall be substituted in the preceding sentence; provided, that such foreign investor has the power to direct the management and policies of such entity.

1.2 "Annual Net Sales" means the worldwide aggregate Net Sales of a Licensed Product during a calendar year.

1.3 "Arrowhead" means Arrowhead Research Corporation, a Delaware corporation.

1.4 “Assigned IP” means (a) the Assigned Patent Rights; (b) the Patent Files; (c) all inventions disclosed in the Assigned Patent Rights (other than those disclosed as prior art of a Third Party); and (d) the right to recover for past infringement of the Assigned Patent Rights.

1.5 “Assigned Patent Rights” means the Patent Rights set forth in Exhibit A and all Counterparts thereof.

1.6 “Calando Indemnitees” means Calando, its Affiliates, and the agents, directors, officers and employees of Calando and its Affiliates.

1.7 “Calando Liabilities” means any and all liabilities or obligations (whether known or unknown, absolute or contingent, liquidated or unliquidated, due or to become due and accrued or unaccrued, and whether claims with respect thereto are asserted before or after the Effective Date) of Calando.

1.8 “Caltech” means California Institute of Technology.

1.9 “Caltech Agreement” means that License Agreement between Caltech and Calando (formerly known as Insert Therapeutics, Inc.), dated May 22, 2000, as amended on December 10, 2001, January 13, 2003 and June 19, 2009.

1.10 “Caltech Joint Patent Rights” means the subset of the Licensed Patent Rights set forth in Exhibit B and all Counterparts thereof.

1.11 “Caltech Sole Patent Rights” means the subset of the Licensed Patent Rights set forth in Exhibit C and all Counterparts thereof.

1.12 “Cerulean Indemnitees” means Cerulean, its Affiliates, and the agents, directors, officers and employees of Cerulean and its Affiliates.

1.13 “Change of Control” means (a) the closing of a merger, tender offer, share exchange, reorganization, consolidation or other similar transaction involving Cerulean in which the persons who beneficially own Cerulean’s voting securities immediately prior to such transaction would, immediately after such transaction, beneficially own less than fifty percent (50%) of the voting securities of the surviving entity; or (b) a sale or other transfer to a Third Party of all or substantially all of Cerulean’s assets or business relating to this Agreement. For purposes hereof, “beneficial ownership” shall have the meaning provided in Rule 13d-3 under the Securities Exchange Act of 1934.

1.14 “Clinical Trial” means any clinical trial of a Licensed Product or any other administration of a Licensed Product prior to receipt of a Regulatory Approval.

1.15 “Collective Patent Rights” means the Assigned Patent Rights and the Licensed Patent Rights.

1.16 “Combination Therapy” means a Licensed Product and a separate pharmaceutical product sold by Cerulean or its Affiliates in combination for co-administration.

1.17 "Commercially Reasonable Efforts" means, with respect to a Licensed Product, taking such actions, exerting such effort and employing such resources as would normally be taken, exerted or employed by a comparably-sized company in the biotechnology industry for a product of similar market potential at a similar stage of its product life as such Licensed Product, taking into account the phase of development of, and technical risks relating to, the product, the development and proprietary positions of third parties, the regulatory structure involved, the likely cost of goods, the competitiveness and size of the relevant marketplace, and the potential profitability of the product, when utilizing sound and reasonable scientific, business and medical practice and judgment.

1.18 "Confidential Information" means, with respect to a Party (the "Disclosing Party") all proprietary information, patentable or otherwise, of the Disclosing Party (whether owned by the Disclosing Party or disclosed by a Third Party to the Disclosing Party under an obligation of confidentiality) which is disclosed by or on behalf of such Party to the other Party (the "Receiving Party") pursuant to and in contemplation of this Agreement, including information pertaining to chemical substances, therapeutic agents, pharmaceutical compositions, drug delivery systems, formulations, processes, techniques, methodologies, data, reports, know-how, expertise, sources of supply, patent positioning and business plans. Confidential Information of the Disclosing Party includes "Proprietary" Information of the "Discloser", each as defined in the Prior Confidentiality Agreement. The elements of Assigned IP described in Sections 1.4(a), (b) and (c) shall be treated as Confidential Information of Cerulean, except to the extent they have been or are later disclosed by the publication of any patent or patent application. Any sublicense agreements disclosed by a Party to the other Party pursuant to Section 3.3 shall be treated as Confidential Information of the Party entering into such sublicense agreement.

1.19 "Control" or "Controlled" means, with respect to an entity and an item of Know-How or any intellectual property right, the possession of the right (whether by ownership, license or otherwise (other than pursuant to a license granted under this Agreement)) by such entity or its Affiliates, to assign, or grant a license, sublicense or other right to or under, such Know-How or intellectual property right as provided for herein without violating the terms of any agreement or other arrangement with any Third Party.

1.20 "Counterparts" means:

(a) with respect to a patent, the following items, collectively: any patent applications from which such patent issued, and all patents and patent applications described in clause (b) with respect to each such patent application;

(b) with respect to a patent application (including any provisional application), the following items, collectively: (i) all divisionals, continuations and continuations-in-part of such patent application; (ii) any patents (including certificates of correction) issuing from such patent application or any patent application described in clause (i); (iii) all patents and patent applications based on, corresponding to or claiming the priority date(s) of any of the patents and patent applications described in clauses (i) or (ii); (iv) any substitutions, extensions (including supplemental protection certificates), registrations, confirmations, reissues, re-examinations and renewals of any of the patents described in clauses (ii) or (iii); and (iv) foreign counterparts of any of the foregoing.

1.21 "Covered" means, with respect to a particular Licensed Product and patent, that, but for a license granted to a Party under a Valid Claim included in such patent, or, with respect to an Assigned Patent Right, but for the assignment of such patent, the manufacture, use, offer for sale, sale or importation of such Licensed Product would infringe such Valid Claim.

1.22 "Cyclodextrin System" means any cyclodextrin-based polymer drug delivery system developed by Calando prior to the Effective Date and any improvements thereto developed during the Term.

1.23 "Cytolysin/Tubulysin Agreement" means the Joint Development Agreement Relating to Cytolysin/Tubulysin between Calando and R&D dated January 31, 2009.

1.24 "FDA" means the United States Food and Drug Administration or any successor agency thereto.

1.25 "Field" means the treatment and/or prevention of disease in humans.

1.26 "First Commercial Sale" means, with respect to a Licensed Product in a country, the first bona fide sale of a Licensed Product following the first receipt of a Regulatory Approval for such Licensed Product to permit use or consumption of such Licensed Product by the general public in such country. Transfers of Licensed Products for Clinical Trial purposes shall not be considered a First Commercial Sale.

1.27 "IND" means a United States investigational new drug application or its equivalent or any corresponding application of another country.

1.28 "IT-101" means the product licensed to Cerulean as the "Licensed Product" pursuant to the IT-101 Agreement.

1.29 "IT-101 Agreement" means the IT-101 Agreement entered into by the Parties on the Effective Date.

1.30 "Know-How" means any ideas, concepts, discoveries, developments, information and inventions, whether or not patentable, including materials, products, laboratory, pre-clinical and clinical data, expertise, know-how, processes, techniques, and any other scientific or technical information.

1.31 "Knowledge" means (a) with respect to Calando, the actual knowledge of the following individuals (together with any knowledge that a person in such person's position would be expected to obtain given the exercise of reasonably prudent scientific and business diligence in accordance with the standards of companies in the biotechnology industry): **[***]**(collectively, the "Calando Representatives"); and (b) with respect to Cerulean, the actual knowledge of the following individuals (together with any knowledge that a person in such person's position would be expected to obtain given the exercise of reasonably prudent scientific and business diligence in accordance with the standards of companies in the biotechnology industry): **[***]**.

1.32 "Licensed IP" means, collectively, the Licensed Know-How and Licensed Patent Rights.

1.33 "Licensed Know-How" means all Know-How Controlled by Calando as of the Effective Date or during the Term which both (a) relates to the Cyclodextrin System and/or Calando's research and development of Licensed Products or IT-101 and (b) is necessary or reasonably useful to (i) conduct research and development on the Cyclodextrin System, including making improvements thereto, or (ii) research, develop, make, have made, use, market, offer to sell, distribute, sell and/or import Licensed Products or IT-101. Without limiting the generality of the foregoing, Licensed Know-How shall include all Know-How developed, applied or acquired by Calando prior to the Effective Date that (A) pertains to the use of the Cyclodextrin System, (B) is a process for manufacturing the cyclodextrin polymer, or precursors thereto, employed in the Cyclodextrin System, (C) is a process for conjugating or complexing therapeutic agents to the cyclodextrin polymer employed in the Cyclodextrin System, or (D) is data generated by Calando in its research and development of Licensed Products or IT-101.

1.34 "Licensed Patent Rights" means all Patent Rights Controlled by Calando as of the Effective Date or during the Term which both (a) relate to the Cyclodextrin System and/or Calando's research and development of Licensed Products or IT-101 and (b) are necessary or reasonably useful to (i) conduct research and development on the Cyclodextrin System, including making improvements thereto, or (ii) research, develop, make, have made, use, market, offer to sell, distribute, sell and/or import Licensed Products or IT-101. Without limiting the generality of the foregoing, Licensed Patent Rights shall include the Caltech Joint Patent Rights, the Caltech Sole Patent Rights and the RNAi Patent Rights. For the sake of clarity, the Licensed Patent Rights exclude the Assigned Patent Rights.

1.35 "Licensed Product" means any Product, other than IT-101, in which no therapeutic agent is a Retained Therapeutic Agent.

1.36 "NDA" means a United States new drug application or its equivalent or any corresponding application of another country.

1.37 "Net Sales" means, with respect to a Licensed Product, the gross amount invoiced by Cerulean or its Affiliates on sales or other dispositions of such Licensed Product to a Third Party less the sum of (a) commercially reasonable trade, cash and quantity discounts, (b) credit or allowances given or made for recall, rejection or return of previously sold Licensed Products, (c) commercially reasonable rebates, chargebacks or retroactive price reductions, (d) out-of-pocket charges for insurance, postage, handling, freight and other transportation costs which are invoiced by Cerulean or its Affiliates, (e) government-mandated rebates and (f) customs, duties, surcharges, sales, transfer and other excise taxes levied on the sale, transportation, delivery or use of such Licensed Product, including any tax such as a value added or similar tax or government charge, borne by the seller thereof, other than franchise or income tax of any kind whatsoever.

Net Sales shall not include any transfers of a Licensed Product for clinical trial purposes or any transfers of reasonable quantities of a Licensed Product as samples or as donations.

Net Sales shall not include any transfer between Cerulean and any of its Affiliates for resale. If Cerulean or an Affiliate sells a Licensed Product to a distributor or other Third Party, Net Sales shall be based on the gross amount invoiced by Cerulean or the Affiliate from the sale of Licensed Product to such distributor or Third Party.

If Cerulean or any of its Affiliates makes a sale of a Licensed Product for other than monetary value, such Licensed Product shall be deemed sold hereunder. The gross revenues to be included in Net Sales for any such deemed sales shall be the average price of "arms length" sales by Cerulean and its Affiliates during the calendar quarter in which such deemed sale occurs or, if no such "arms length" sales occurred during such period, during the last calendar quarter in which such "arms length" sales occurred.

If the Licensed Product is sold in combination with another pharmaceutical product as part of a Combination Therapy in a country, then, for the purpose of calculating royalties owed under this Agreement on sales of such Licensed Product, Net Sales shall be the lesser of:

(i) Net Sales of such Licensed Product in such country, or

(ii) the product of:

(A) Net Sales of such Combination Therapy (calculated applying the definition of Net Sales hereunder to such Combination Therapy in the same manner as applied to Licensed Product) in such country, and

(B) the fraction A/(A+B), where A is the average invoice price of such Licensed Product in such country, and B is the average invoice prices of the other pharmaceutical product(s) in such Combination Therapy in such country; provided, however, that, if in a specific country the other pharmaceutical product(s) in such Combination Therapy are not sold separately in such country but the Licensed Product is sold separately in such country, the fraction shall be A/C, where A is the average invoice price of the Licensed Product in such country and C is the invoice price of the Combination Therapy; provided, further, however, that, if in a specific country the Licensed Product is not sold separately in such country but the other pharmaceutical products are sold separately in such country, the fraction shall be C-B/C, where B is the average invoice price of the other pharmaceutical product(s) in the Combination Therapy in such country and C is the invoice price of the Combination Therapy in such country; and provided, further, however, that, if in a specific country neither the Licensed Product nor any of the other pharmaceutical products are sold separately in such country, then the fraction shall be negotiated in good faith by the Parties.

1.38 "Party" means Calando or Cerulean; "Parties" means Calando and Cerulean.

1.39 "Patent Files" means, with regard to the Assigned Patent Rights, the following as in existence on the Effective Date: (a) the complete file histories; (b) all correspondence between Calando and Calando's outside counsel related to the subject matter of such rights; (c) all internal Calando correspondence related to the subject matter of such rights; (d) copies of prior art searches and search results related to the subject matter of such rights; (e) copies of publications identified in prior art searches; and (f) all opinions or other analyses related to the subject matter of such rights.

1.40 “Patent Right” means any patent application (including any provisional application) or patent, and any Counterpart thereof.

1.41 “Phase 3 Clinical Trial” means a human clinical trial that is prospectively designed to demonstrate statistically whether a Licensed Product is safe and effective to prevent or treat a particular indication in a manner sufficient to obtain Regulatory Approval to market such Licensed Product, or that is otherwise described in 21 CFR 312.21(c) or its foreign counterpart.

1.42 “Prior Confidentiality Agreement” means the Mutual Confidentiality Agreement between the Parties dated February 4, 2009.

1.43 “Product” means a pharmaceutical composition containing a therapeutic agent(s) conjugated or complexed to the Cyclodextrin System.

1.44 “R&D” means R&D Pharmaceuticals, GmbH.

1.45 “R&D SGE Agreement” means the Joint Development Agreement relating to Second Generation Epothilones between Calando and R&D dated January 31, 2009.

1.46 “Regulatory Approval” means, with respect to a Licensed Product in a country or regulatory jurisdiction, any and all approvals (including any applicable governmental price and reimbursement approvals), licenses, registrations, or authorizations of the relevant Regulatory Authority necessary for the manufacture, use, storage, import, transport, promotion, marketing and sale of such Product in such country, including approvals of NDAs.

1.47 “Regulatory Authority” means any applicable government regulatory authority involved in granting approvals for the marketing and/or pricing of a pharmaceutical product in a country or regulatory jurisdiction, including the FDA and foreign equivalents thereof.

1.48 “Relevant Agreement” means each agreement, other than a confidentiality agreement, between Calando and an Affiliate of Calando or a Third Party currently in effect, whether or not relating to the Cyclodextrin System or Licensed Products, including any agreement regarding evaluation, research, development, collaboration, material transfer, manufacture, license, joint venture, non-competition, clinical trial, lease of real property or equipment, line of credit, bank loan or other loan.

1.49 “Required Third Party Payments” means payments (including upfront payments, annual maintenance fees, milestones and earned royalties) made by Cerulean or any of its Affiliates to a Third Party to license Know-How or Patent Rights in order to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field.

1.50 “Requisite Debt Holder Consent and Release” means that each holder of a promissory note of which Calando is the maker (each a “Note” and, collectively, the “Notes”) has irrevocably, in writing, (a) consented to the transactions contemplated by this Agreement and (b) released Cerulean and its Affiliates from, and agreed not to assert against Cerulean or its Affiliates or any of their respective assets (including the Licensed IP, Assigned IP and the

Inventory), any Liens, claims, rights or other interests it has or may have (i) in connection with or as a result of the transactions contemplated hereby, (ii) in, against or relating to any of the Licensed IP, Assigned IP and the Inventory and/or (iii) relating to the Notes or any stock into which the Notes can be converted.

1.51 "Requisite Stockholder Approval" means the approval of the license of the Licensed Patent Rights and Licensed Know-How and sale of the Assigned IP and the Inventory by Calando to Cerulean as contemplated by this Agreement by (a) a majority of the votes represented by the outstanding shares of capital stock of Calando entitled to vote thereon and (b) a majority of the votes represented by the outstanding shares of capital stock of Calando entitled to vote thereon, other than shares of such capital stock held by Arrowhead.

1.52 "Retained Product" means any Product in which each therapeutic agent is a Retained Therapeutic Agent.

1.53 "Retained Therapeutic Agent" means cytolysin (as defined in the Cytolysin/Tubulysin Agreement), tubulysin (as defined in the Cytolysin/Tubulysin Agreement), any SGE or any nucleic acid.

1.54 "RNAi Patent Rights" means the subset of the Licensed Patent Rights set forth in Exhibit D and all Counterparts thereof.

1.55 "SGE" has the meaning given such term in the R&D SGE Agreement.

1.56 "Sublicense Income" means all amounts received by Cerulean or any of its Affiliates to the extent attributable to a license or sublicense granted to a Third Party of any of the Assigned Patent Rights, Licensed Patent Rights or Licensed Know-How (such Third Party, a "Sublicensee"), including upfront payments, annual maintenance fees, milestone payments (including for development, performance and sales milestones) and earned royalties, but:

(a) amounts received by Cerulean or its Affiliates as payments for performing research, development (other than development milestone payments referenced in the foregoing paragraph of this Section 1.56), manufacturing or commercialization activities undertaken by Cerulean or any of its Affiliates for, or in collaboration with, such Sublicensee will be excluded; provided, that such deduction to Sublicense Income is an amount no greater than the fully-burdened cost for Cerulean or its Affiliates in connection with such activities and all out-of-pocket costs paid by Cerulean or its Affiliates to Third Parties in connection with such activities;

(b) amounts received by Cerulean or its Affiliates from such Sublicensee as the purchase price for Cerulean's or any of its Affiliates' debt or equity securities will be excluded; provided, that, with respect to any such securities which are publicly traded on any securities exchange or NASDAQ, such deduction to Sublicense Income is an amount no greater than the fair market value of such debt or equity securities;

(c) if such Sublicensee will also pay an earned royalty on its sale of a Licensed Product, then amounts paid by such Sublicensee to Cerulean or its Affiliates as a transfer price to purchase the relevant Licensed Product or any component thereof will be excluded; and

(d) if such Sublicensee will not also pay an earned royalty on its sale of a Licensed Product, then amounts paid by such Sublicensee to Cerulean or its Affiliates as a transfer price to purchase the relevant Licensed Product or any component thereof will be excluded, but only up to the actual cost of goods of such Licensed Product or component.

1.57 "Third Party" means any person other than the Parties and their Affiliates.

1.58 "Valid Claim" means a claim of an unexpired issued patent which has not been withdrawn, cancelled or disclaimed nor held invalid or unenforceable by a court of competent jurisdiction in an unappealed or unappealable decision.

1.59 Other Defined Terms. The word "person" means any entity or individual. Each of the following definitions is set forth in the section of this Agreement indicated below:

Definition	Section
Arrowhead Guarantee	2.3(c)
Bankruptcy Code	3.4
Bill of Sale	2.3(e)
Breaching Party	12.2
Calando Representatives	1.32
Caltech Side Letter	2.3(d)
Disclosing Party	1.18
Escrow Agent	8.7(a)
Escrow Agreement	8.7(a)
FTE Hour	4.1(b)
Full Access Notebooks	8.7(b)
Initial Payment	5.1
Inventory	2.1(a)
Inventory Price	2.1(a)
Joint IP	7.1

Definition	Section
Lien	2.3(h)
Losses	10.1
Non-Breaching Party	12.2
Non-Prosecuting Party	7.2(d)
Note(s)	1.50
Partial Access Notebooks	8.7(c)
Patent Assignment	2.3(e)
Prosecuting Party	7.2(d)
Receiving Party	1.18
Restricted Access Notebooks	8.7(d)
Royalty Payment Date	5.6
Sale Event	13.1
Sublicensee	1.57
Term	12.1

SECTION 2. ASSET SALE AND TRANSFER

2.1 Inventory.

(a) Calando hereby irrevocably and unconditionally sells, transfers, conveys, assigns and delivers to Cerulean, and Cerulean hereby purchases from Calando, all right, title and interest in and to, **[***]**, for an aggregate purchase price of **[***]** U.S. Dollars (US $**[***]**), and **[***]**, for an aggregate purchase price of **[***]** U.S. Dollars (US $**[***]**) (such material, collectively, the "Inventory"). The total purchase price of **[***]** U.S. Dollars (US $**[***]**) (the "Inventory Price") shall be paid by Cerulean to Calando on the Effective Date via wire transfer of immediately available funds to an account designated by Calando.

(b) The Parties agree and acknowledge that Cerulean's payment for the Inventory is in addition to the Initial Payment and is inclusive of all excise, sales, use, transfer and other taxes and duties (if any) imposed with respect to the Inventory or its sale by any governmental authority (all of which shall be the responsibility of, and will be paid by, Calando).

(c) Title to and possession of the Inventory will be delivered to Cerulean, free and clear of any encumbrances, on the Effective Date in its current location and condition at the premises of **[***]** (or one of its Affiliates) in **[***]**. Cerulean shall be responsible for all expenses and fees related to the storage, removal and transportation of the Inventory from and after the Effective Date, while Calando shall be responsible for all expenses and fees related to the storage, removal and transportation of the Inventory prior to the Effective Date. Risk of loss or damage, liability for, and responsibility to insure the Inventory will pass to Cerulean on the Effective Date.

2.2 Patent Rights.

(a) Calando hereby irrevocably and unconditionally sells, transfers, conveys, assigns and delivers to Cerulean, and Cerulean hereby purchases from Calando, all right, title and interest in and to the Assigned IP.

(b) The Parties agree and acknowledge that Cerulean's payment for the Assigned IP is included in the Initial Payment and shall be allocated to the Assigned IP for tax purposes.

2.3 Calando Closing Conditions. Unless waived by Cerulean, as of the Effective Date, Calando shall have:

(a) obtained the Requisite Stockholder Approval and the Requisite Debt Holder Consent and Release;

(b) delivered to Cerulean a certificate of good standing of Calando in its jurisdiction of organization and the various foreign jurisdictions in which it is qualified, certified charter documents and a certificate as to the incumbency of officers and the adoption of authorizing resolutions;

(c) provided Cerulean with a guarantee and indemnification from Arrowhead, in form and substance reasonably acceptable to Cerulean, in which Arrowhead (i) guarantees Calando's performance under this Agreement, (ii) makes the same representations and warranties to Cerulean as Calando makes to Cerulean under Section 9.1 or clauses (i)-(k) of Section 9.2, and (iii) agrees to indemnify Cerulean to the same extent as Calando indemnifies Cerulean pursuant to Section 10.2 from any Losses relating to or in connection with a Third Party claim arising out of any breach by Arrowhead of its representations or warranties as described in clause (ii), and for which indemnification Calando and Arrowhead shall be jointly and severally liable to Cerulean and the Cerulean Indemnitees (the "Arrowhead Guarantee");

(d) provided to Cerulean a letter agreement executed by Calando and Caltech in the form attached as Exhibit E (the "Caltech Side Letter");

(e) executed and delivered to Cerulean a bill of sale substantially in the form attached hereto as Exhibit F (the "Bill of Sale"), a patent assignment in the form attached hereto as Exhibit G (the "Patent Assignment"), and such other instruments of conveyance as Cerulean may reasonably request in order to effect the sale, transfer, conveyance and assignment to Cerulean of valid ownership to the Assigned IP and Inventory;

(f) made the Patent Files available to Cerulean, it being understood that Calando and Cerulean shall each be obligated to Calando's outside patent counsel for Twenty-Three Thousand U.S. Dollars, which amount represents fifty percent (50%) of the cost of certain foreign patent filings required to be made in June 2009 in respect of the Assigned Patent Rights;

(g) recertified the Inventory prior to the Effective Date in accordance with the testing procedures proscribed by Cerulean, and provided Cerulean with the results thereof;

(h) supplied Cerulean with documentation, in form and substance reasonably acceptable to Cerulean, pursuant to which the appropriate Affiliate of **[***]** acknowledges that the ownership of the Inventory has been transferred to Cerulean and releases such Inventory from any claim, liability, mortgage, pledge, security interest, encumbrance, license, charge, encumbrance or other lien of any kind (whether arising by contract or by operation of law) (each, a "Lien");

(i) made available to Cerulean copies of all laboratory notebooks, raw data, summary data and reports pertaining to the Cyclodextrin System or the Licensed Products, or the research, development or manufacture of the Cyclodextrin System or the Licensed Products, it being understood that the terms and conditions of Section 8.7 shall apply with respect to the laboratory notebooks; and

(j) supplied Cerulean with letters of access, in form and substance reasonably acceptable to Cerulean, addressed to all Third Party contractors and vendors identified by Cerulean pertaining to the research, development or manufacture of the Cyclodextrin System or the Licensed Products.

2.4 Cerulean Closing Conditions. As of the Effective Date, Cerulean shall have:

(a) delivered to Calando a certificate of good standing of Cerulean in its jurisdiction of organization and the various foreign jurisdictions in which it is qualified and a certificate as to the incumbency of officers and the adoption of authorizing resolutions;

(b) executed and delivered to Calando the CalTech Side Letter; and

(c) executed and delivered to Calando the Bill of Sale and the Patent Assignment.

2.5 Non-Assumption of Liabilities. Notwithstanding anything to the contrary, Cerulean shall not assume, or become responsible for, and Calando shall remain responsible for, the Calando Liabilities.

SECTION 3. LICENSES

3.1 Grant to Cerulean. Calando hereby grants to Cerulean an exclusive (even as to Calando, but subject to Section 12.2(b)), transferable (as permitted pursuant to Section 13.1), irrevocable and perpetual (subject to each Party's termination rights in Section 12), royalty-bearing, worldwide license, with the right to grant sublicenses, under the Licensed Patent Rights and under all intellectual property rights in the Licensed Know-How, solely in order to (a)

conduct research and development on the Cyclodextrin System, including making improvements thereto, in order to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field, (b) research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field, and (c) use, copy, modify and distribute the Licensed Know-How for such purposes.

3.2 Grant to Calando. Cerulean hereby grants to Calando an exclusive (even as to Cerulean), transferable (as permitted pursuant to Section 13.1), irrevocable, perpetual, royalty-free, worldwide license, with the right to grant sublicenses, under the Assigned Patent Rights solely to the extent necessary to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Retained Products.

3.3 Sublicenses. All sublicenses granted pursuant to Section 3.1 or 3.2 shall be consistent with the terms and conditions of this Agreement and the Party granting such sublicense shall incorporate terms and conditions into its sublicense agreements sufficient to enable such Party to comply with this Agreement. Such Party shall furnish the other Party with a copy of each executed sublicense agreement within ten (10) business days after its execution.

3.4 Section 365(n) of the Bankruptcy Code. All rights and licenses granted under or pursuant to any section of this Agreement are and shall otherwise be deemed to be for purposes of Section 365(n) of the Bankruptcy Code licenses of rights of "intellectual property" as defined in Section 101(35A) of the United States Bankruptcy Code (Title 11, U.S.C.), as amended (the "Bankruptcy Code"). The Parties shall retain and may fully exercise all of their respective rights and elections under the Bankruptcy Code. Upon the bankruptcy of a Party, the non-bankrupt Party shall further be entitled to a complete duplicate of, or complete access to, any such intellectual property, and such, if not already in its possession, shall be promptly delivered to the non-bankrupt Party, unless the bankrupt Party elects to continue, and continues, to perform all of its obligations under this Agreement.

3.5 Patent Marking. Cerulean and Calando shall mark the appropriate U.S. patent number(s) on Licensed Products or on Retained Products, respectively, made or sold in the United States in accordance with all applicable government laws, rules and regulations.

SECTION 4. POST-CLOSING ASSISTANCE AND COVENANTS

4.1 Technology Transfer.

(a) Within the first twelve (12) months following the Effective Date, Calando shall, and shall cause its employees to, provide to Cerulean, upon Cerulean's request, such scientific, technical and other assistance as is reasonably necessary for Cerulean to exploit the Licensed Know-How; provided, however, that this Section 4.1(a) shall not require Calando to maintain employment of any employees; provided, further, that Calando shall use commercially reasonable efforts to assist Cerulean in entering into employment or consulting arrangements (at Cerulean's sole cost) with any former employees of Calando. In addition, Calando shall reasonably assist Cerulean in interacting with Calando's Third Party contractors and vendors to facilitate Cerulean's ability to develop the Licensed Products and exploit the Licensed Know-How; provided, that Calando makes no representations or warranties as to such Third Party

contractors' or vendors' intentions to conduct business with Cerulean following the Effective Date. To the extent that Cerulean hires or engages the services of any former employee of Calando or any Third Party contractor or vendor of Calando for purposes contemplated under this Agreement, Calando hereby waives any obligations of confidentiality or non-use or any non-competition restrictions imposed on such employees, contractors or vendors to the extent that they pertain to Licensed Products or the use of the Cyclodextrin System in connection with Licensed Products.

(b) Cerulean shall reimburse Calando (i) for the assistance described in Section 4.1(a) at the rate of **[***]** U.S. Dollars (US $**[***]**) for each hour of scientific, technical or other work in providing such assistance (each, an "FTE Hour") and (ii) for all reasonable out-of-pocket expenses incurred by Calando in providing such assistance, to the extent such assistance and expenses have been approved by Cerulean in writing in advance of incurrence. Within thirty (30) days after the end of each calendar month during such twelve (12) month period, Calando shall provide to Cerulean a report of the number of FTE Hours actually devoted, and the expenses actually incurred, by Calando for such assistance during such just-ended calendar month, and an invoice for the amount to be reimbursed by Cerulean as provided hereunder. Cerulean shall pay such invoice within fifteen (15) days after receipt. For the sake of clarity, there shall be no double payments for any assistance which may be provided under both this Agreement and the IT-101 Agreement.

(c) Calando shall keep true and accurate books of accounts and other records containing all information and data which may be necessary to ascertain and verify the amounts payable under this Section 4.1. During the first eighteen (18) months after the Effective Date, Cerulean shall have a one-time right to have an independent certified public accountant inspect such books and records of Calando. Any such independent certified accountant shall be reasonably acceptable to Calando, shall execute a standard form of confidentiality agreement with Calando, and shall be permitted to share with Cerulean solely its findings with respect to the accuracy of the amounts reported as payable under this Section 4.1.

4.2 Caltech Agreements.

(a) Calando shall not amend, restate, alter, waive or otherwise change any of the terms and conditions of the Caltech Agreement or Caltech Side Letter without the prior written approval of Cerulean, which approval shall not be unreasonably withheld, conditioned or delayed. Calando shall provide Cerulean with a copy of any proposed or executed amendment, restatement, alteration, waiver or other change of the terms and conditions of the Caltech Agreement or Caltech Side Letter. Further, Calando shall not assign (other than in connection with a Sale Event) or terminate the Caltech Agreement or Caltech Side Letter without the prior written approval of Cerulean, which approval shall not be unreasonably withheld, conditioned or delayed.

(b) Calando shall use commercially reasonable efforts to satisfy all of its obligations under and to take all steps necessary to maintain in full force and effect the Caltech Agreement or Caltech Side Letter. Calando shall provide Cerulean with written notice of any claim of a breach under, or any threat or notice of termination of, the Caltech Agreement or Caltech Side Letter.

4.3 SGE Agreement. Upon Cerulean's request, Calando shall use commercially reasonable efforts to assist Cerulean in the negotiation of an agreement among Calando, Cerulean and R&D, pursuant to which Cerulean shall obtain rights to the SGEs on terms and conditions comparable to those in this Agreement.

4.4 Further Assurances. At any time and from time to time hereafter, each Party, at the other Party's request and without further consideration, shall execute and deliver, or cause to be duly executed and delivered (including by its Affiliates and employees), such further instruments and do and cause to be done such further acts and things, including the filing of such assignments, agreements, documents and instruments, as may be necessary or as the requesting Party may reasonably request in connection with this Agreement or to carry out more effectively the provisions and purposes hereof, or to better assure and confirm the rights and remedies of the Parties under this Agreement, including to more effectively transfer, convey and assign to Cerulean, and to confirm Cerulean's title to, all of the Assigned IP and Inventory, to put Cerulean in actual possession and control thereof, to assist Cerulean in exercising all rights with respect thereto and to carry out the purpose and intent of this Agreement. Other than those obligations expressly set forth herein, Cerulean shall not assume or agree to perform, pay or discharge, and Calando shall remain unconditionally liable, for the Calando Liabilities.

SECTION 5. FEES AND ROYALTIES

5.1 Fees. In addition to the Inventory Price, Cerulean shall pay on the Effective Date a one-time, non-refundable, non-creditable purchase and license fee in the amount of **[***]** ***U***.S. Dollars (US $**[***]**) (the "Initial Payment"). In addition, Cerulean shall reimburse Calando for **[***]** U.S. Dollars ($**[***]**), which amount represents the cost incurred by Calando in recertifying the Inventory and certain of the inventory being transferred under the IT-101 Agreement. The foregoing amounts shall be distributed as follows: (a) **[***]** U.S. Dollars ($**[***]**) shall be paid by Cerulean directly to the applicable Third Party as set forth in Exhibit H, on behalf of Calando, on the Effective Date; (b) **[***]** U.S. Dollars **[***]** Cents ($**[***]**), which amount represents the legal fees incurred by Calando in connection with its negotiation of this Agreement and the IT-101 Agreement, shall be paid by Cerulean directly to Calfee, Halter & Griswold LLP, on behalf of Calando, on the Effective Date; and (c) **[***]** U.S. Dollars **[***]** Cents ($**[***]**) shall be paid by Cerulean to Calando via wire transfer of immediately available funds to an account designated by Calando, on the Effective Date.

5.2 Development Milestones.

(a) For each Licensed Product developed by Cerulean or an Affiliate of Cerulean that reaches the following development milestones, Cerulean shall pay the applicable non-refundable milestone payment set forth below, subject to Sections 5.2(b) and 5.2(c), within thirty (30) days of the occurrence of such event to Calando via wire transfer of immediately available funds to an account designated by Calando:

Milestone Event:	**Milestone Payment:**
(i) The filing of the first IND with any Regulatory Authority	**[***]** U.S. Dollars (US $**[***]**)

Milestone Event:	Milestone Payment:
(ii) Initiation (first dosing of the first patient) of the first Phase 3 Clinical Trial	**[***]** U.S. Dollars (US $**[***]**)
(iii) The filing of the first NDA with any Regulatory Authority	**[***]** U.S. Dollars (US $**[***]**)
(iv) First Commercial Sale in any country	**[***]** U.S. Dollars (US $**[***]**)

(b) Such milestone payments shall be made only if, upon the occurrence of such milestone event, a Valid Claim of a Collective Patent Right exists in any country of the world. All development milestone payments made with respect to a Licensed Product shall be fully credited to all royalties due under Section 5.5 with respect to such Licensed Product.

(c) If, following the achievement of any such milestone event for a particular Licensed Product, Cerulean or its Affiliate decides not to progress such Licensed Product further through the development or commercialization process for any reason, then the milestone payments already paid by Cerulean with respect to such failed Licensed Product shall be fully credited against future milestone payments due under this Section 5.2 with respect to the next Licensed Product progressed through such milestone
event(s).

5.3 Sales Milestones.

(a) For each Licensed Product developed by Cerulean or an Affiliate of Cerulean which reaches the following sales thresholds, Cerulean shall pay the applicable non-refundable, non-creditable milestone payment set forth below, subject to Section 5.3(b), within thirty (30) days after the occurrence of such event to Calando via wire transfer of immediately available funds to an account designated by Calando:

Milestone Event:	Milestone Payment:
(i) Annual Net Sales of **[***]** U.S. Dollars (US $**[***]**)	**[***]** U.S. Dollars (US $**[***]**)
(ii) Annual Net Sales of **[***]** U.S. Dollars (US $**[***]**)	**[***]** U.S. Dollars (US $**[***]**)

(b) Such milestone payments shall be made only if, upon the occurrence of such milestone event, a Valid Claim of a Collective Patent Right exists in any country of the world. Each such payment shall be made once for each such Licensed Product to reach the relevant milestone event.

5.4 Sublicense Income. With respect to Licensed Products developed and sold by a Sublicensee, Cerulean shall pay to Calando **[***]** percent (**[***]**%) of all Sublicense Income; provided, however, that (a) such payments shall be made only if, at the time of Cerulean's or its Affiliate's receipt of Sublicense Income, a Valid Claim of a Collective Patent Right exists in any country of the world; and (b) the percentage of Sublicense Income due Calando for earned

royalties (but not for upfront payments, milestones or maintenance fees) will be capped at the royalty rates under Section 5.5 that would apply if such sales were made by Cerulean or an Affiliate of Cerulean.

5.5 Royalties.

(a) Base Rate.

(i) For each Licensed Product sold by Cerulean or an Affiliate of Cerulean, Cerulean shall pay to Calando (subject to Sections 5.2(b), 5.5(b), 5.5(c) and 5.5(d)) the following tiered earned royalties on Annual Net Sales (on a Licensed Product-by-Licensed Product basis) of each Licensed Product whose manufacture, use or sale, at the time of sale and in the country of sale, is, or would be if such manufacture or use occurred in the country of sale, Covered by a Valid Claim of a Collective Patent Right:

Annual Net Sales Tiers:	**Royalty Rate:**
The portion of Annual Net Sales which is less than or equal to US $**[***]**	**[***]**%
The portion of Annual Net Sales which is greater than US $**[***]**, but less than or equal to US $**[***]**	**[***]**%
The portion of Annual Net Sales which is greater than US $**[***]**	**[***]**%

(ii) For each Licensed Product sold by Cerulean or an Affiliate of Cerulean, Cerulean shall pay to Calando (subject to Sections 5.2(b), 5.5(b), 5.5(c) and 5.5(d)) the following tiered earned royalties on Annual Net Sales (on a Licensed Product-by-Licensed Product basis) of each Licensed Product whose manufacture, use or sale, at the time of sale and in the country of sale, is not, and would not be if such manufacture or use occurred in the country of sale, Covered by a Valid Claim of a Collective Patent Right:

Annual Net Sales Tiers:	**Royalty Rate:**
The portion of Annual Net Sales which is less than or equal to US $**[***]**	**[***]**%
The portion of Annual Net Sales which is greater than US $**[***]**, but less than or equal to US $**[***]**	**[***]**%
The portion of Annual Net Sales which is greater than US $**[***]**	**[***]**%

(b) Royalty Term.

(i) Royalties on such Licensed Product whose manufacture, use or sale, at the time of sale and in the country of sale, is, or would be if such manufacture or use occurred in the country of sale, Covered by a Valid Claim of a Collective Patent Right shall be payable until the expiration of such Valid Claim.

(ii) Royalties on such Licensed Product whose manufacture, use or sale, at the time of sale and in the country of sale, is not, and would not be if such manufacture or use occurred in the country of sale, Covered by a Valid Claim of a Collective Patent Right shall be payable if such sale occurs within the first ten (10) years after the First Commercial Sale of such Licensed Product in such country; provided, however, that, at the time of such manufacture, use or sale, a Valid Claim of a Collective Patent Right exists in any country of the world.

(iii) Once the royalty obligations hereunder end with respect to a Licensed Product in a country of sale, Cerulean shall have a fully paid-up, non-exclusive, perpetual license, under the Licensed Patent Rights, and under all intellectual property rights in the Licensed Know-How, to research, develop, make, have made, use, market, offer to sell, distribute, sell and import such Licensed Product in any country in order to sell such Licensed Product in the Field in such country and to use, copy, modify and distribute the Licensed Know-How for such purposes.

(c) The obligation to pay royalties shall be imposed only once, at the point of the first sale, with respect to a particular unit of Licensed Product.

(d) Cerulean shall be entitled to deduct from the royalty payments it makes pursuant to Section 5.5(a) with respect to a Licensed Product **[***]** percent (**[***]**%) of Required Third Party Payments with respect to such Licensed Product; provided, that, in no event shall a deduction under this Section 5.5(d) reduce any royalty payment payable by Cerulean pursuant to Section 5.5(a) by more than **[***]** percent (**[***]**%). Cerulean shall be entitled to carry forward any unused amounts against future royalty payments payable by Cerulean hereunder with respect to such Licensed Product, until such unused amounts are fully offset.

(e) Calando shall remain solely responsible for any payments owed under the Caltech Agreement.

5.6 Reports and Payment. Commencing with the calendar quarter in which the First Commercial Sale of a Licensed Product occurs in any country in the world and continuing during the Term, Cerulean shall deliver to Calando, within sixty (60) days after the end of each calendar quarter (the "Royalty Payment Date"), (a) a written report showing Cerulean's computation of Sublicense Income due under this Agreement for such calendar quarter on a Licensed Product-by-Licensed Product basis, (b) a written report showing Cerulean's computation of royalties due under this Agreement for such calendar quarter on a country-by-country and a Licensed Product-by-Licensed Product basis and (c) payment of the Sublicense Income and royalties shown to be due under this Agreement for such calendar quarter via wire transfer of immediately available funds to an account designated by Calando. With respect to sales of Licensed Products invoiced in United States Dollars, the sales and royalties payable shall be expressed in United States Dollars. With respect to sales of Licensed Products invoiced in a currency other than United States Dollars, the sales and royalties payable shall be expressed in their United States Dollar equivalent calculated using the applicable conversion rates for buying United States Dollars published by The Wall Street Journal on the last business day of the calendar quarter to which the royalty report relates. All Sublicense Income and royalty payments shall be made in United States Dollars.

5.7 Right to Setoff. If Calando and/or Arrowhead fails to indemnify a Cerulean Indemnitee as contractually provided for in Section 10.2, then Cerulean may, at its option and upon written notice to Calando, setoff such amount from any amounts owed by Cerulean to Calando pursuant to Sections 5.2, 5.3, 5.4 or 5.5 of this Agreement.

5.8 Tax Withholding. Cerulean shall use reasonable and legal efforts to reduce tax withholding payments to be made to Calando. Notwithstanding the foregoing, if Cerulean concludes that tax withholdings under the laws of any country are required with respect to payments to Calando, Cerulean shall withhold the required amount and pay it to the appropriate governmental authority. In any such case, Cerulean shall promptly provide Calando with original receipts or other evidence reasonably desirable and sufficient to allow Calando to document such tax withholdings for purposes of claiming foreign tax credits and similar benefits.

5.9 Records. Cerulean shall keep, and shall require its Affiliates and Sublicensees to keep, true and accurate books of accounts and other records containing all information and data which may be necessary to ascertain and verify the royalties and other amounts payable by Cerulean under this Agreement. During the Term and for a period of three (3) years thereafter, Calando shall have the right from time to time (not to exceed once during each calendar year) (a) to have an independent certified public accountant inspect such books and records of Cerulean and its Affiliates or (b) to require that Cerulean have an independent certified public accountant inspect such books and records of the Sublicensees. Any such independent certified public accountant shall be reasonably acceptable to Cerulean, shall execute a standard form of confidentiality agreement with Cerulean, shall be permitted to share with Cerulean its findings, and shall be permitted to share with Calando solely its findings with respect to the accuracy of the amounts reported as payable under this Agreement. If such audit determines that the royalties paid to Calando pursuant to Section 5.5 for any such audited period were understated, then Cerulean shall, within ten (10) days of receipt of the audit report, pay to Calando the entirety of such understated amount, plus interest accruing from the Royalty Payment Date until the date that such understated amount is paid at an interest rate equal to the lesser of (i) ten percent (10%) per annum or (ii) the highest interest rate allowable by law. If such audit determines that the royalties paid to Calando pursuant to Section 5.5 for any such audited period were understated by an amount equal to or greater than five percent (5%) of what was owed, then Cerulean shall reimburse Calando for any reasonable out-of-pocket costs of such audit paid by Calando.

SECTION 6. DILIGENCE

6.1 Diligence. Cerulean, through itself, its Affiliates or sublicensees, shall use **[***]**. In addition, if, at any time prior to the **[***]**, then Cerulean (or its successor, as applicable), together with its Affiliates and sublicensees, shall **[***]**, during each Diligence Period; provided, however, that, in lieu of such **[***]**. Such amount shall be pro-rated for any Diligence Period which is less than twelve months in length. "Diligence Period" means the **[***]**.

6.2 Performance Reports. Cerulean agrees to provide annual performance reports to Calando within thirty (30) calendar days of a written request by Calando, which shall be no more frequent than once every twelve (12) months. These performance reports shall describe all research and development efforts for Licensed Products (on a Licensed Product-by-Licensed Product basis) since the last performance report. After the date of First Commercial Sale of a particular Licensed Product in any of the European Union, United States or Japan, such Licensed Product need not be included in subsequent annual reports; provided, however, that Cerulean shall continue to report on all other Licensed Products.

6.3 Conformity with Caltech Agreement. If, and to the extent, that Caltech, pursuant to Section 5.2 of the Caltech Agreement, requires Calando to report on the progress of introducing commercial Licensed Products in the United States, Calando shall promptly (but in any event within five (5) business days) report such requirement to Cerulean and Cerulean shall promptly (within thirty (30) days thereafter) provide a written report thereof to Calando and Calando shall promptly (but in any event within five (5) business days) provide such report to Caltech.

6.4 Compliance with Laws. Each Party shall, and shall ensure that its Affiliates and sublicensees shall, comply with all applicable laws in exercising their rights and fulfilling their obligations under this Agreement.

SECTION 7. INTELLECTUAL PROPERTY

7.1 Ownership. As between the Parties, (a) all Know-How developed, conceived or reduced to practice after the Effective Date solely by employees and consultants of Cerulean or its Affiliates, and all intellectual property rights in the foregoing, shall be owned solely by Cerulean, and (b) all Know-How developed, conceived or reduced to practice after the Effective Date solely by employees and consultants of Calando or its Affiliates, and all intellectual property rights in the foregoing, shall be owned solely by Calando. While the Parties do not anticipate that any Know-How will be jointly developed, if any Know-How is developed, conceived or reduced to practice after the Effective Date jointly by employees and consultants of Cerulean or its Affiliates, on the one hand, and Calando or its Affiliates, on the other hand, such Know-How and all intellectual property rights therein (such Know-How and intellectual property rights, collectively, "Joint IP"), shall be owned jointly by Cerulean and Calando, on the basis of an undivided interest. Subject to the licenses granted to Cerulean pursuant to Section 3.1 and pursuant to the IT-101 Agreement, each Party shall have the right to fully exploit the Joint IP, and to sublicense such Party's rights under the Joint IP, without a duty to account to the other Party. If any patentable Joint IP is conceived or reduced to practice, the Parties shall negotiate in good faith reasonable rights and responsibilities of the Parties to prosecute and enforce such Joint IP. Inventorship, for the purposes of this Section 7.1, shall be determined by the Parties in good faith in accordance with United States patent laws.

7.2 Patent Prosecution.

(a) Assigned Patent Rights. Cerulean shall have the sole right, at its own expense and in its own name, to prepare, file, prosecute and maintain the Assigned Patent Rights. If Cerulean determines to discontinue the prosecution or maintenance of any patent application

or patent within such Assigned Patent Rights, Cerulean shall promptly notify Calando, sufficiently in advance of any deadlines to ensure that no rights with respect thereto are lost, and thereupon, Calando shall have the right, at its own expense, to prosecute and maintain any such Patent Right.

(b) RNAi Patent Rights. Calando shall have the sole right, at its own expense and in its own name, to prepare, file, prosecute and maintain the RNAi Patent Rights.

(c) Caltech Patent Rights. The Parties agree and acknowledge that, with respect to the Caltech Joint Patent Rights and the Caltech Sole Patent Rights, as set forth in the Caltech Agreement, Caltech has the right to prosecute such Patent Rights, Calando has the right to comment on such prosecution and Calando pays the patent costs thereof, but that:

(i) Calando shall use reasonable efforts to cause Caltech to promptly provide Calando with copies of all material correspondence received from any patent counsel or patent authority pertaining to such Patent Rights;

(ii) Calando shall promptly provide Cerulean with copies of all correspondence received by Calando from Caltech from any patent counsel or patent authority pertaining to such Patent Rights;

(iii) Calando shall provide Cerulean, sufficiently in advance of any deadline for Cerulean to comment, with copies of all patent applications and other submissions and correspondence with any patent counsel or patent authority pertaining to such Patent Rights, and shall use reasonable efforts to ensure that Caltech gives due consideration to Cerulean's comments; and

(iv) in the event of the bankruptcy or other insolvency of Calando or a termination, for any reason, of the Caltech Agreement, as between the Parties, the provisions of the Caltech Side Letter shall supersede any conflicting provisions of this Section 7.2(c) and the Caltech Agreement.

(d) Other Licensed Patent Rights. Calando shall have the initial right, at its own expense and in its own name, to prepare, file, prosecute and maintain any Licensed Patent Rights other than the Caltech Joint Patent Rights, Caltech Sole Patent Rights and RNAi Patent Rights. If Calando determines not to prepare or file any patent application covering any Licensed Know-How or determines to discontinue the prosecution or maintenance of any patent application or patent within such Licensed Patent Rights, Calando shall promptly notify Cerulean, sufficiently in advance of any deadlines to ensure that no rights with respect thereto are lost, and thereupon, Cerulean shall have the right, at its own expense, to prepare, file, prosecute and maintain any such Patent Right. With respect to the preparation, filing, prosecution and maintenance of such Licensed Patent Rights:

(i) the Party not preparing, filing, prosecuting or maintaining such patent or patent application (the "Non-Prosecuting Party") shall, at the reasonable request of the other Party (the "Prosecuting Party"), assist and cooperate in the filing, prosecution and maintenance of such Patent Rights;

(ii) the Prosecuting Party shall provide the Non-Prosecuting Party, sufficiently in advance of any deadline for the Non-Prosecuting Party to comment, with copies of all patent applications and other submissions and correspondence with any patent counsel or patent authority pertaining to such Patent Rights;

(iii) the Prosecuting Party shall give due consideration to the Non-Prosecuting Party's comments, but the Prosecuting Party shall have the final say in determining whether or not to incorporate such comments;

(iv) each Party shall promptly provide the other with copies of all correspondence received from any patent counsel or patent authority pertaining to such Patent Rights; and

(v) if Cerulean is preparing, filing, prosecuting or maintaining Licensed Patent Rights, Cerulean may fully credit any out-of-pocket expenses incurred by Cerulean in connection therewith against any other payments due by Cerulean hereunder.

7.3 Enforcement.

(a) Notice. Each Party shall promptly (but within no more than five (5) days) report in writing to the other Party during the Term any suspected infringement of the Collective Patent Rights (including any "patent certification" filed in the United States under 21 U.S.C. §355(b)(2) or 21 U.S.C. §355(j)(2) or similar provisions in other jurisdictions), any declaratory judgment, opposition, or similar action alleging the invalidity, unenforceability or non-infringement of the Collective Patent Rights, or any suspected unauthorized use or misappropriation of any Licensed Know-How or of the other Party's Confidential Information, of which it becomes aware, and shall provide the other Party with all available evidence supporting such suspected infringement, action or unauthorized use or misappropriation.

(b) Enforcement of Assigned Patent Rights. Cerulean shall have the sole right to initiate an appropriate suit anywhere in the world against any Third Party who at any time is suspected of infringing all or any portion of the Assigned Patent Rights.

(c) Enforcement of RNAi Patent Rights. Calando shall have the sole right to initiate an appropriate suit anywhere in the world against any Third Party who at any time is suspected of infringing all or any portion of the RNAi Patent Rights.

(d) Enforcement of Licensed Patent Rights other than RNAi Patent Rights.

(i) Cerulean shall have the first right to initiate an appropriate suit anywhere in the world against any Third Party who at any time is suspected of infringing all or any portion of the Licensed Patent Rights other than the RNAi Patent Rights, or using without proper authorization all or any portion of the Licensed Know-How, by researching, developing, making, having made, using, marketing, offering to sell, distributing, selling or importing any product that falls within the scope of the definition of "Licensed Product" (but not a product that falls within the scope of the definition of "Retained Product"). Calando shall join as a party to any such suit brought by Cerulean, if requested by Cerulean, but shall be under no obligation to participate except to the extent that such participation is required as the result of being a named

party to the suit. Upon Cerulean's request, Calando shall provide reasonable assistance to Cerulean in connection therewith at no charge to Cerulean except for reimbursement of Calando's reasonable out-of-pocket expenses (including reasonable attorneys' fees) incurred in rendering such assistance. Any recoveries resulting from such action (whether in the form of damages, royalties, settlement payments or otherwise) shall first be applied to reimburse Cerulean for all out-of-pocket expenses incurred in connection with such proceeding (and any out-of-pocket expenses of Calando paid by Cerulean) and (A) to the extent that the remaining recovery represents lost profits, such remaining recovery shall be retained by Cerulean, with Calando entitled to receive an amount equal to the royalties that would have been due Calando on sales of the relevant Licensed Product lost by Cerulean as a result of the infringement and (B) to the extent that the remaining recovery represents punitive or other damages, Cerulean shall be entitled to **[***]** (**[***]**%) of such remaining recovery and Calando shall be entitled to **[***]** (**[***]**%) of such remaining recovery.

(ii) If, within one hundred eighty (180) days after notification of an infringement of the Licensed Patent Rights with respect to which Cerulean would have the first right to bring suit as described in Section 7.3(d)(i), Cerulean has not been successful in persuading the alleged infringer to desist and is not diligently pursuing an infringement action or suit, or has notified Calando of its intent not to bring action or suit against the alleged infringer, then Caltech or Calando may institute an action or suit against such Third Party, in accordance with their rights of priority under Sections 6.1 and 6.2 of the Caltech Agreement, subject to the following if Calando institutes such action or suit:

(A) Prior to taking any action, Calando shall confer with Cerulean and give due consideration to Cerulean's reasons for not pursuing such alleged infringer.

(B) The action or suit shall be brought in the name of Caltech and/or Calando and Calando shall bear the entire cost of such action or suit. Calando shall promptly provide Cerulean with copies of all litigation pleadings and other documents submitted to the court.

(C) With respect to any consideration received by Calando in connection with such action or suit, Calando shall first be entitled to deduct its litigation expenses and legal fees (including any incurred as part of an indemnification of Cerulean). All remaining recovery shall be **[***]**.

(D) If it shall be necessary for Calando to join Cerulean as a party to an action or suit because Cerulean constitutes a legally indispensable party, Calando shall have the right to so join Cerulean; provided, that Calando indemnifies Cerulean for all outside costs and expenses (including reasonable attorneys fees) thereby incurred by Cerulean.

(iii) Calando shall have the sole right to initiate an appropriate suit anywhere in the world against any Third Party who at any time is suspected of infringing all or any portion of the Licensed Patent Rights other than the RNAi Patent Rights, or using without proper authorization all or any portion of the Licensed Know-How, by researching, developing, making, having made, using, marketing, offering to sell, distributing, selling or importing any product that falls within the scope of the definition of "Retained Product" (but not a product that falls within the definition of "Licensed Product").

(iv) The Party enforcing such Licensed Patent Rights or Licensed Know-How pursuant to Section 7.3(d)(i), (ii) or (iii) shall have the sole and exclusive right to select counsel for any such suit referred and shall, except as provided herein, pay all expenses of the suit, including attorneys' fees and court costs. Neither Party shall settle any suit described in this Section 7.3 involving rights of the other Party without obtaining the prior written consent of such other Party, which consent shall not be unreasonably withheld.

7.4 Power of Attorney. Calando hereby constitutes and appoints the President of Cerulean with full power of substitution, the true and lawful attorney-in-fact and agent of Calando, to execute, acknowledge, verify, swear to, deliver, record and file, in Calando's or its assignee's name, place and stead, all in accordance with the terms of this Agreement, all instruments, documents and certificates which may from time to time be required by the laws of the governmental authority to prosecute, maintain and enforce the Licensed Patent Rights other than the RNAi Patent Rights, and to prepare and file any patent applications covering Licensed Know-How, in each case to the extent Calando or its assignee has such right pursuant to this Section 7. The power of attorney granted herein will be deemed to be coupled with an interest, will survive and not be affected by the dissolution, bankruptcy or legal disability of Calando and will extend to its successors and assigns. If required, Calando shall execute and deliver to Cerulean within five (5) days after the receipt of a request therefor, such further designations, powers of attorney or other instruments as Cerulean will reasonably deem necessary for the purposes described in this Section 7.4.

7.5 Claimed Infringement. If a Third Party at any time provides written notice of a claim, or brings an action, suit or proceeding, against either Party or any of its Affiliates or sublicensees, claiming infringement of such Third Party's Patent Rights or unauthorized use or misappropriation of such Third Party's Know-How, arising out of the research or development of the Cyclodextrin System or the research, development, making, having made, use, marketing, offering to sell, distribution, sale or importation of Licensed Products, such Party shall promptly notify the other Party of the claim or the commencement of such action, suit or proceeding, enclosing a copy of the claim and all papers served and such Party shall have the sole right and responsibility to take any action it deems appropriate with respect such claim, action, suit or proceeding.

SECTION 8. CONFIDENTIAL INFORMATION

8.1 Treatment of Confidential Information. Each Receiving Party shall maintain in confidence the Confidential Information of the Disclosing Party and shall not disclose, divulge or otherwise communicate such Confidential Information to others, or use it for any purpose, except to exercise its rights or fulfill its obligations under this Agreement. Each Receiving Party shall exercise every reasonable precaution to prevent and restrain the unauthorized disclosure of such Confidential Information by any of its directors, officers, employees, consultants, subcontractors, sublicensees or agents.

8.2 Release from Restrictions. The provisions of Section 8.1 shall not apply to any Confidential Information of the Disclosing Party which:

(a) was known or used by the Receiving Party or any of its Affiliates prior to its date of disclosure to the Receiving Party, as demonstrated by competent evidence of the Receiving Party;

(b) either before or after the date of the disclosure to the Receiving Party is lawfully disclosed to the Receiving Party or any of its Affiliates by a Third Party rightfully in possession of, and with the right to disclose, such Confidential Information;

(c) either before or after the date of the disclosure to the Receiving Party becomes published or generally known to the public through no fault or omission on the part of the Receiving Party or its Affiliates;

(d) is required to be disclosed by the Receiving Party to comply with applicable laws or regulations, to defend or prosecute litigation or arbitration, to file for patent protection as permitted hereunder or to file for Regulatory Approval as permitted hereunder; provided, however, that (i) with respect to a disclosure to comply with laws or regulations or to defend or prosecute litigation or arbitration, then, to the extent permitted by law, the Receiving Party shall provide the Disclosing Party with prompt notice of any such requirement, and (ii) with respect to any disclosure under this clause (d), then, where available, the Receiving Party shall take reasonable and lawful actions to avoid and/or minimize the degree of such disclosure; or

(e) is independently developed by the Receiving Party or any of its Affiliates without reference to the Confidential Information of the Disclosing Party;

provided, however, that Calando may not rely on the provisions of Section 8.2(a) or (b) with respect to the Assigned IP.

8.3 Permitted Disclosure. The Receiving Party may provide the Disclosing Party's Confidential Information to the directors, employees, consultants and advisors of the Receiving Party and its Affiliates, and to its then-current and potential licensees who have a need to know such Confidential Information for purposes of the Receiving Party granting licenses or sublicenses under Collective Patent Rights or Licensed Know-How as permitted herein; provided, that such persons shall (a) execute or have executed an agreement in reasonable form whereby they agree to be bound by an obligation, or (b) be bound by ethical or fiduciary obligations, in each case to maintain the confidentiality of the Disclosing Party's Confidential Information at least to the same extent as if they were parties hereto.

8.4 Publicity. No Party shall have the right to make any public announcements with respect to this Agreement, nor publicly disclose the terms of this Agreement, without the prior written consent of the other Party, except as follows:

(a) On the first business day following the execution of this Agreement, each Party shall issue its press release attached hereto as Exhibit I.

(b) Each Party may disclose the terms of this Agreement to the extent such disclosure is required by law (including by rules or regulations of any securities exchange or NASDAQ) or to defend or prosecute litigation or arbitration; provided, that, prior to such disclosure, to the extent permitted by law or such rules or regulations, the disclosing Party promptly notifies the other Party of such requirement and gives such other Party an opportunity to comment on the disclosure to be made, the disclosing Party furnishes only those terms of this Agreement that the disclosing Party is legally required to furnish and the disclosing Party requests, and use reasonable efforts to obtain, confidential treatment of financial and other commercially sensitive terms.

(c) Each Party may make subsequent disclosures of information which has been previously publicly disclosed in accordance with this Agreement.

(d) Calando may disclose this Agreement to (i) Calando's then-current and potential Third Party licensors or licensees of the Collective Patent Rights, and (ii) Calando's then-current and potential investors and acquirers; provided, that such persons are bound to maintain the confidentiality of this Agreement to the same extent as if they were parties hereto and Calando shall not disclose the financial and other commercially sensitive terms of this Agreement to any licensee outside the Field.

(e) Cerulean may disclose this Agreement to (i) Cerulean's then-current and potential licensors or licensees of the Collective Patent Rights, and (ii) Cerulean's then-current and potential investors and acquirers; provided, that such persons are bound to maintain the confidentiality of this Agreement to the same extent as if they were parties hereto.

(f) From and after the Effective Date, Cerulean shall have the right to make and control all disclosures regarding Licensed Products.

8.5 Enforcement. The provisions of Section 8 of this Agreement are necessary for the protection of the business and goodwill of the Parties and are considered by the Parties to be reasonable for such purpose. The Receiving Party agrees that any breach of Section 8 of this Agreement may cause the Disclosing Party substantial and irreparable injury and, therefore, in the event of any such breach, in addition to other remedies which may be available, the Disclosing Party may have the right to specific performance and other injunctive and equitable relief.

8.6 Caltech Name. Except as may be required by law, Cerulean shall not, without having first obtained written approval from Caltech, use the name of Caltech, or California Institute of Technology, in any advertising or publicity material, or make any form of representation or statement which would constitute an express or implied endorsement by Caltech of any Licensed Product.

8.7 Laboratory Notebooks. The laboratory notebooks of Calando shall be made available to Cerulean upon the following terms and conditions:

(a) All original laboratory notebooks and one complete unredacted electronic copy of the original laboratory notebooks shall be archived with **[***]** (the "Escrow Agent") pursuant to the terms and conditions of the Three-Party Escrow Agreement (also known as the

Technology Escrow Agreement) attached hereto as Exhibit J (the "Escrow Agreement"). The master inventory list included as Exhibit D to the Escrow Agreement references each such laboratory notebook, including its assigned number and the inventor to whom the laboratory notebook was assigned, and whether such laboratory notebook is a Full Access Notebook, Partial Access Notebook or Restricted Access Notebook. Such deposit with the Escrow Agent shall be made by Calando on or prior to the Effective Date and shall be released to Cerulean in accordance with the terms of the Escrow Agreement.

(b) In addition, Cerulean shall be given, and granted full access to, one complete unredacted electronic copy of the **[***] ([***]**) laboratory notebooks of Calando that: (i) do not primarily relate to nucleic acids; (ii) contain disclosure related to the Assigned IP or Licensed IP; and (iii) do not contain proprietary information of Third Parties (such notebooks, the "Full Access Notebooks").

(c) Cerulean shall be given, and granted full access to, one redacted electronic copy of the **[***] ([***]**) laboratory notebooks of Calando that: (i) do not primarily relate to nucleic acids; (ii) contain disclosure related to the Assigned IP or Licensed IP; and (iii) contain proprietary information of Third Parties that is not disclosure related to the Assigned IP or Licensed IP (such notebooks, the "Partial Access Notebooks"). Calando shall delete from such copy of such laboratory notebooks the proprietary information of Third Parties that is not disclosure related to the Assigned IP or Licensed IP.

(d) Cerulean shall not be given or granted full access to any of the **[***] ([***]**) laboratory notebooks that are primarily related to nucleic acids and which may or may not contain proprietary information of Third Parties (such notebooks, the "Restricted Access Notebooks").

(e) Notwithstanding the foregoing clauses (c) and (d), one complete unredacted electronic copy of the originals of each of the Full Access Notebooks, Partial Access Notebooks and Restricted Access Notebooks shall be delivered to Cerulean on the Effective Date. Such copies of the Partial Access Notebooks and Restricted Access Notebooks shall be maintained in a secure location and access to such copies shall be limited at all times to the most senior scientific officer of Cerulean, the most senior internal legal counsel of Cerulean and outside counsel of Cerulean. Cerulean, acting through such representatives, shall have the right to refer to and use such copies of the Partial Access Notebooks and Restricted Access Notebooks solely: (i) for regulatory or governmental purposes pertaining to the Cyclodextrin System or any Licensed Product; (ii) in connection with any litigation pertaining to the Cyclodextrin System or any Licensed Product; (iii) for the maintenance, prosecution or defense of the Assigned IP or Licensed IP; (iv) to resolve scientific or technical questions regarding the redacted laboratory notebooks; and (v) to make corrections in the event that any disclosures related to the Assigned IP or Licensed IP were improperly or incorrectly redacted.

(f) Cerulean's use of the Full Access Notebooks, whether the originals released by the Escrow Agent or the copies provided hereunder, shall be unrestricted.

(g) In no event shall Cerulean have any right, nor is any right granted by Calando to Cerulean, to exploit any proprietary information of Third Parties that is not Assigned IP or Licensed IP and is contained in any of the laboratory notebooks of Calando.

(h) Title to and ownership of the Full Access Notebooks, the Partial Access Notebooks and the Restricted Access Notebooks shall remain with Calando.

SECTION 9. WARRANTIES

9.1 Mutual Warranties. Each Party warrants that:

(a) it is a corporation duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation, and it has full power and authority and the legal right to own and operate its property and assets and to carry on its business as it is now being conducted and as it is contemplated to be conducted by this Agreement;

(b) it has the full right, power and authority to enter into this Agreement and to grant the rights and licenses granted by it under this Agreement;

(c) as of the Effective Date, there is no existing or, to its Knowledge, threatened action, suit, claim, litigation, investigation, proceeding or controversy pending before any court, administrative agency or other governmental authority with respect to (i) the subject matter of this Agreement, or (ii) its right to enter into and perform its obligations under this Agreement;

(d) as of the Effective Date, it has taken all necessary corporate and stockholder action on its part to authorize the execution and delivery of this Agreement and the performance of its obligations under this Agreement;

(e) this Agreement has been duly executed and delivered on behalf of it, and constitutes a legal, valid, binding obligation, enforceable against it in accordance with the terms hereof, subject to the general principles of equity and to bankruptcy, insolvency, moratorium and other similar laws affecting the enforcement of creditors' rights generally;

(f) as of the Effective Date, all necessary consents, approvals and authorizations of all governmental authorities and other persons required to be obtained by it in connection with the execution and delivery of this Agreement and the performance of its obligations under this Agreement have been obtained;

(g) the execution and delivery of this Agreement and the performance of its obligations hereunder do not (i) conflict with, or constitute a default under, any of its contractual obligations, (ii) conflict with or violate any provision of its Certificate of Incorporation, by-laws or other organizational documents; or (iii) violate any judgment, order, writ, injunction, decree, statute, rule or regulation of any court, administrative agency or other governmental authority applicable to it or any of its properties or assets; and

(h) it has no liability or obligation to pay any fees or commissions to any broker, finder or agent with respect to the transactions contemplated by this Agreement.

9.2 Additional Calando Warranties. Except as set forth in the Disclosure Letter attached hereto and made a part hereof, Calando warrants to Cerulean that, as of the Effective Date:

(a) Good Title. Immediately prior to the Effective Date and the assignments pursuant to Section 2, (i) Calando was the sole, true and lawful owner of, and had good title to, the Assigned IP and the Inventory, free and clear of all Liens of any kind; (ii) Calando is not, and has not been, bound by any policies or agreements under which the Assigned IP or Inventory has been or will be assigned to anyone other than Cerulean; (iii) Calando has the right to sell and transfer to Cerulean good, clear record and title to the Assigned IP and Inventory, free and clear of all Liens of any kind; and (iv) upon execution and delivery to Cerulean of this Agreement and the instruments of conveyance referred to in Section 2.3(e), Cerulean will become the sole, true and lawful owner of, and receive good title to, the Assigned IP and Inventory, free and clear of all Liens.

(b) Inventory. All Inventory was manufactured in accordance with cGMP and the specifications set therefor by Calando and conform to such specifications.

(c) Assignment of Assigned IP. Prior to the Effective Date and the assignment pursuant to Section 2.2, Calando had recorded with the appropriate governmental authorities all assignments and any other documentation necessary to convey to Calando all rights, title and interest in and to any of the Assigned IP to which Calando has acquired rights from its employees, Affiliates or Third Parties. Other than pursuant to the Cytolysin/Tubulysin Agreement, there is no agreement currently in effect pursuant to which Calando has granted any license, right or authority under any Assigned IP to any person, nor has Calando extended any covenant not to sue under the Assigned IP to any person.

(d) Government Rights. Calando, its Affiliates and Caltech have neither sought, applied for nor received any support, funding, resources or assistance from any governmental authority in connection with the development, conception or reduction to practice of the Assigned IP or Licensed IP or the research, development, manufacturing, having made, use, marketing, offering to sell, distribution, sale or importation of any Licensed Product or any facilities or equipment used in connection therewith.

(e) Completeness. Exhibits A, B, C and D collectively list all Patent Rights owned, solely or jointly, by Calando or its Affiliates and/or Controlled by Calando that relate to the Cyclodextrin System or the Licensed Products, in each case immediately prior to the assignment of the Assigned Patent Rights pursuant to Section 2.2. Such exhibits accurately list, for each such Patent Right: the applicable serial number, filing date, title, jurisdiction in which filing was made, issue date and owners(s).

(f) Patent Validity. To Calando's Knowledge, (i) all issued patents included in the Collective Patent Rights are valid and enforceable; (ii) no claim has been made against Calando, its Affiliates or the Third Party co-owner thereof alleging that any issued patent included in the Collective Patent Rights is invalid or unenforceable; (iii) all assignments of such Patent Rights have been properly executed and recorded; (iv) all issuance, renewal, maintenance and other payments that are or have become due with respect thereto have been timely paid by or

on behalf of Calando or the Third Party co-owner thereof; (v) there are no inventorship challenges, opposition or nullity proceedings or interferences declared, commenced or provoked with respect to any Collective Patent Rights; and (vi) with respect to the Assigned Patent Rights and with respect to any Licensed Patent Rights owned, in whole or in part, by Calando, Calando and its Affiliates have, and any co-owner of such Patent Rights has, complied with the duty of candor and disclosure to the United States Patent and Trademark Office and any relevant foreign patent office and have made no material misrepresentation in any patent applications included in or underlying such Patent Rights. Calando has no Knowledge of any information that would preclude it from owning the Assigned IP (immediately prior to the assignment pursuant to Section 2.2) or the Licensed Patent Rights described in clause (vi) hereof.

(g) Non-Infringement of Third Party Rights. There are no claims pending or, to the actual knowledge of the Calando Representatives, threatened by any person against Calando or any of its Affiliates alleging that Calando's ownership, sale, licensing, possession or use of, or disclosure, transfer, license or assignment (as applicable) to Cerulean of, the Inventory, Assigned IP or Licensed IP infringes upon or constitutes an unauthorized use of the intellectual property rights of any person, nor is there any known basis for any such claim. To the actual knowledge of the Calando Representatives, none of the Licensed Products that have been developed by or for Calando on or before the Effective Date infringe or misappropriate any intellectual property right of any Third Party. Except as previously disclosed to Cerulean's General Counsel, to the actual knowledge of the Calando Representatives, the research, development, making, having made, use, offering for sale, distribution, sale or importation of the **[***]** described in Exhibit K, in and of itself, by or on behalf of Cerulean, its Affiliates or sublicensees after the Effective Date, will not infringe or misappropriate any intellectual property right of any Third Party. Calando and its Affiliates have not received any complaint, claim or notice, nor any threat thereof (including any notification that a license under any Patent Right or other intellectual property right is or may be required), alleging any such infringement or misappropriation.

(h) Non-Infringement by Third Party. To Calando's Knowledge, no person (including any current or former employee or consultant of Calando) is infringing, violating or misappropriating (i) any of the Assigned IP or (ii) any of the Licensed IP in the Field.

(i) Corporate Documents. Calando has furnished to Cerulean true, complete and accurate copies of (i) its current Certificate of Incorporation and by-laws; (ii) all material documentation pertaining to the formation of the previous corporate entity known as Calando Pharmaceuticals, Inc., the subsequent merger of such corporate entity into Insert Therapeutics, Inc. and the subsequent change in the name of Insert Therapeutics, Inc. to Calando Pharmaceuticals, Inc.; (iii) its stock ledger going back to the inception of Calando or its predecessor and a list of all current stockholders of Calando; (iv) all documentation for any repurchased or cancelled shares of stock of Calando; (v) all option plans, option agreements, warrants and other rights to purchase equity of Calando (including any exercises) and the ledger(s) listing current holders thereof; (vi) all promissory notes of Calando and a ledger listing all current holders thereof; (vii) all agreements relating to the sale of equity of Calando; (viii) all board of director and stockholder minute books dating to the inception of Calando or its predecessor; and (ix) any other Relevant Agreement, including (A) any agreement under which a Lien has been or could be imposed on any of the Assigned IP, Licensed IP or Inventory and (B) any agreement that restricts or could reasonably be expected to have the effect of restricting the rights granted to Cerulean hereunder.

(j) Approvals. This Agreement and the transactions contemplated hereby have been approved by Calando's board of directors and stockholders in accordance with the corporate laws of the state of Delaware, including Section 144 of the Delaware General Corporation Law.

(k) Solvency. Neither Calando nor any of its Affiliates has ever filed in any court or agency pursuant to any statute or regulation of any state or country, a petition in bankruptcy or insolvency or for reorganization or for an arrangement or for the appointment of a receiver or trustee of it or its assets. Neither Calando nor any of its Affiliates has been served with an involuntary petition against it, filed in any insolvency proceeding. Neither the execution and delivery of this Agreement nor the consummation of the transactions contemplated hereby will result in the imposition of any Lien upon any assets of Calando.

9.3 Disclaimer. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS SECTION 9, NEITHER PARTY MAKES ANY REPRESENTATIONS OR EXTENDS ANY WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, QUALITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, OR VALIDITY OF PATENT CLAIMS.

SECTION 10. INDEMNIFICATION

10.1 Indemnification by Cerulean. Cerulean agrees to defend the Calando Indemnitees, at Cerulean's cost and expense, and will indemnify and hold harmless the Calando Indemnitees from and against any and all losses, costs, damages, fees or expenses ("Losses") relating to or in connection with a Third Party claim arising out of (a) any actual or alleged death, personal bodily injury or damage to real or tangible personal property claimed to result, directly or indirectly, from the possession, use or consumption of, or treatment with, any Licensed Product, developed, manufactured, used or sold by or on behalf of Cerulean, its Affiliates or sublicensees after the Effective Date; (b) any breach by Cerulean of its representations, warranties or covenants made under this Agreement; or (c) any negligent act or omission or willful misconduct of Cerulean, its Affiliates or sublicensees or any of their employees, contractors or agents, in performing Cerulean's obligations or exercising Cerulean's rights under this Agreement; provided, however, that the foregoing indemnity shall not apply to the extent that any such Losses (i) are attributable to the gross negligence or willful misconduct of the Calando Indemnitees, or (ii) are otherwise subject to an obligation by Calando to indemnify the Cerulean Indemnitees under Section 10.2. In the event of any such claim against any Calando Indemnitee, Calando shall promptly notify Cerulean in writing of the claim and Cerulean shall manage and control, at its sole expense, the defense of the claim and its settlement as provided below. The relevant Calando Indemnitees shall cooperate with Cerulean and may, at such Calando Indemnitees' option and expense, be represented in any such action or proceeding. Cerulean shall not be liable for any settlements, litigation costs or expenses incurred by any Calando Indemnitees without Cerulean's written authorization. No Calando Indemnitee shall settle any such claim without the prior written consent of Cerulean. Cerulean shall not, without the prior written consent of Calando, agree to any settlement of any such claim that does not include a complete release of Calando from all liability with respect thereto or that imposes any liability, obligation or restriction on Calando.

10.2 Indemnification by Calando. Calando agrees to defend the Cerulean Indemnitees, at Calando's cost and expense, and will, jointly and severally with Arrowhead, indemnify and hold harmless the Cerulean Indemnitees from and against any and all Losses relating to or in connection with a Third Party claim arising out of (a) any research, development, manufacture, use, sale, offer for sale or importation of (i) any Licensed Product by or on behalf of Calando, its Affiliates or licensees which activity occurred on or before the Effective Date, or (ii) any Retained Product by or on behalf of Calando, its Affiliates and licensees before, on or after the Effective Date; (b) any breach by Calando of its representations, warranties or covenants made under this Agreement or any breach by Arrowhead of its representations, warranties or covenants made under the Arrowhead Guarantee; or (c) any negligent act or omission or willful misconduct of Calando or its Affiliates, or any of their employees, contractors or agents, in performing Calando's obligations or exercising Calando's rights under this Agreement; provided, however, that the foregoing indemnity shall not apply to the extent that any such Losses (i) are attributable to the gross negligence or willful misconduct of the Cerulean Indemnitees, or (ii) are otherwise subject to an obligation by Cerulean to indemnify the Calando Indemnitees under Section 10.1. In the event of any such claim against any Cerulean Indemnitee, Cerulean shall promptly notify Calando in writing of the claim and Calando shall manage and control, at its sole expense, the defense of the claim and its settlement as provided below. The relevant Cerulean Indemnitees shall cooperate with Calando and may, at such Cerulean Indemnitees' option and expense, be represented in any such action or proceeding. Calando shall not be liable for any settlements, litigation costs or expenses incurred by any Cerulean Indemnitees without Calando's written authorization. No Cerulean Indemnitee shall settle any such claim without the prior written consent of Calando. Calando shall not, without the prior written consent of Cerulean, agree to any settlement of any such claim that does not include a complete release of Cerulean from all liability with respect thereto or that imposes any liability, obligation or restriction on Cerulean.

10.3 Allocation. If a claim is based partially on an indemnified claim and partially on a non-indemnified claim or based partially on a claim indemnified by one Party and partially on a claim indemnified by the other Party, any payments in connection with such claims are to be apportioned between the Parties in accordance with the degree of cause attributable to each Party.

SECTION 11. LIMITATION OF LIABILITY

11.1 UNLESS RESULTING FROM A PARTY'S WILLFUL MISCONDUCT OR FROM A PARTY'S BREACH OF SECTION 8, NEITHER PARTY WILL BE LIABLE TO THE OTHER PARTY OR ITS AFFILIATES FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY, PUNITIVE, MULTIPLE OR OTHER INDIRECT DAMAGES, OR FOR LOSS OF PROFITS, LOSS OF DATA, LOSS OF REVENUE, OR LOSS OF USE DAMAGES, ARISING FROM OR RELATING TO THIS AGREEMENT, WHETHER BASED UPON WARRANTY, CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, REGARDLESS OF ANY NOTICE OF SUCH DAMAGES. FOR PURPOSES OF CLARITY, A PARTY'S INDEMNIFICATION OBLIGATIONS UNDER SECTION 10 OF THIS AGREEMENT SHALL NOT BE DEEMED TO BE INDIRECT DAMAGES PRECLUDED BY THE FOREGOING.

SECTION 12. TERM AND REMEDIES

12.1 Term. This Agreement shall commence on the Effective Date and shall continue until the expiration of all royalty obligations under Section 5.5 (the "Term"); provided, however, that Cerulean shall have the right to terminate this Agreement at any time and for any reason upon thirty (30) days prior written notice to Calando; provided, further, that upon such termination by Cerulean, Cerulean shall grant to Calando an exclusive (even as to Cerulean), transferable (as permitted pursuant to Section 13.1), irrevocable and perpetual, royalty-free, worldwide license, with the right to grant sublicenses, under the Assigned Patent Rights solely in order to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field. Further, if Cerulean determines, in its sole discretion, that such a **[***]**, Cerulean agrees to **[***]** to such **[***]**, and the **[***]**, which **[***]** after the Effective Date and which **[***]**.

12.2 Remedy for Breach. If a Party (the "Breaching Party") is in breach of a material provision of this Agreement (including any breach of a material representation or warranty made in this Agreement), then the other Party (the "Non-Breaching Party") may deliver notice of such breach to the Breaching Party.

(a) If the Breaching Party fails to cure such breach within ninety (90) days after the Breaching Party's receipt of such notice, then the Non-Breaching Party may seek money damages from the Breaching Party with respect to such breach, which shall be the Non-Breaching Party's sole remedy, except as provided in Sections 5.7, 12.2(b) or 12.2(c).

(b) If Cerulean has breached a payment obligation under Section 5 and Cerulean fails to cure such payment breach within thirty (30) days after Cerulean's receipt of such notice, then Calando may, upon written notice to Cerulean, terminate this Agreement; provided, however, that if Cerulean disputes such breach, Calando may not terminate this Agreement unless and until such dispute is finally resolved in Calando's favor and Cerulean fails to cure such payment breach within thirty (30) days after such final resolution. In the case of a termination, Cerulean shall grant to Calando an exclusive (even as to Cerulean), transferable (as permitted pursuant to Section 13.1), irrevocable and perpetual, royalty-free, worldwide license, with the right to grant sublicenses, under the Assigned Patent Rights solely in order to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field.

(c) If Cerulean has breached its obligations under Section 6.1 and Cerulean fails to cure such breach within ninety (90) days after Cerulean's receipt of such notice, then Calando may, upon written notice to Cerulean, convert the license granted in Section 3.1 to a non-exclusive license; provided, however, that if Cerulean disputes such breach, Calando may not convert such license unless and until such dispute is finally resolved in Calando's favor and Cerulean fails to cure such breach within ninety (90) days after such final resolution. In the case of a conversion to non-exclusivity, the royalties payable under this Agreement, as determined in accordance with Section 5.5, shall be reduced by **[***]** (**[***]**%) and Cerulean shall grant to

Calando a non-exclusive, transferable (as permitted pursuant to Section 13.1), irrevocable and perpetual, royalty-free, worldwide license, with the right to grant sublicenses, under the Assigned Patent Rights solely in order to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field.

12.3 Challenges to Licensed Patent Rights. If Cerulean or an Affiliate of Cerulean challenges the validity or enforceability of any of the Licensed Patent Rights before any court, arbitrator or other tribunal or administrative agency in any jurisdiction, Calando shall have the right to terminate this Agreement on thirty (30) days prior written notice to Cerulean.

12.4 Consequences of Termination.

(a) Upon any termination of this Agreement, the license to Cerulean of the Licensed IP shall terminate subject to the following. Cerulean shall, within thirty (30) days of the effective date of such termination, notify Calando in writing of the amount of Licensed Products which Cerulean and its Affiliates and Sublicensees then have completed in inventory, the sale of which would, but for the termination, be subject to royalty payments or payment of a portion of Sublicense Income, and Cerulean and its Affiliates and Sublicensees shall thereupon be permitted during the six (6) months following such termination to sell that amount of Licensed Products; provided, however, that Cerulean shall pay the aggregate royalty or portion of Sublicense Income due thereon at the conclusion of the earlier of sixty (60) days after the last such sale or sixty (60) days after the end of such six (6)-month period. Except as provided herein, all sublicenses granted by Cerulean shall terminate upon the termination of this Agreement.

(b) Upon any termination of this Agreement, neither Party shall be relieved of any obligations incurred prior to such termination.

(c) Upon any termination of this Agreement, each Party shall promptly return to the other Party all tangible Confidential Information of the other Party.

(d) The following provisions shall survive the expiration or termination of this Agreement: Sections 2, 3.2, 3.3 (with respect to sublicenses granted pursuant to Section 3.2), 3.4 (if applicable), 3.5 (regarding the Retained Products), 5.9, 7.1, 7.2(a), 7.3(b), 8, 9.3, 10, 11, 12.1 (with respect to the license granted thereunder, if applicable), 12.2(b) (with respect to the license granted thereunder, if applicable), 12.4 and 13. Any licenses granted under Section 5.5(b)(iii) on or before the effective date of expiration or termination of this Agreement shall survive the expiration or termination of this Agreement.

SECTION 13. MISCELLANEOUS

13.1 Assignment. Neither this Agreement nor any of the rights or obligations hereunder may be assigned by either Party without the prior written consent of the other Party, except (a) each Party may assign this Agreement, in whole or in part, to an Affiliate of the assigning Party; provided, that the assigning Party guarantees the performance of such Affiliate of its obligations hereunder; (b) each Party may assign this Agreement, in whole, to a person who acquires all or substantially all of the business of the assigning Party by merger, sale of assets or otherwise (a "Sale Event"); and (c) each Party may exercise its rights or fulfill its

obligations through its Affiliates, consultants, subcontractors and sublicensees; provided, that, such persons are bound by the corresponding obligations of such Party and such Party shall remain liable hereunder for the performance of its obligations hereunder. Any assignment not in accordance with the foregoing shall be void. Notwithstanding anything to the contrary herein, Calando shall not (i) assign this Agreement, in whole or in part, to any person unless Calando simultaneously assigns to such person all right, title and interest in, to and under the Licensed IP, the Caltech Agreement and the Caltech Side Letter, and (ii) assign any right, title or interest in or to the Licensed IP, except subject to the rights of Cerulean under this Agreement. This Agreement shall be binding upon, and shall inure to the benefit of, all permitted successors and assigns.

13.2 Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Delaware, excluding its conflicts of laws provisions.

13.3 Dispute Resolution. Any dispute, controversy or claim arising out of or relating to this Agreement, or the breach, termination or invalidity thereof, shall be resolved as follows:

(a) The chief executive officers of the Parties shall attempt to resolve such dispute through good faith negotiation. Any such resolution of a referred dispute by the chief executive officers shall be final and binding on the Parties.

(b) If the Parties' chief executive officers cannot resolve such dispute within thirty (30) days after either Party provides written notice of such dispute, then either Party may make a written demand for formal dispute resolution.

(c) Within thirty (30) days after such written demand, the Parties shall conduct a non-binding mediation administered by the American Arbitration Association in accordance with its commercial mediation rules. Unless otherwise mutually agreed upon by the Parties, the mediation proceedings shall be conducted at the location chosen by the Party not originally requesting the resolution of the dispute. The Parties shall share equally the cost of the mediation, including filing and hearing fees and the cost of the mediator(s). Each Party shall have the right, at its own expense, to be represented by counsel in such a proceeding.

(d) If such dispute is not resolved following mediation pursuant to Section 13.3(c), either Party may seek any remedy, at law or in equity, that may be available to it.

(e) Notwithstanding the foregoing provisions of this Section 13.3, each Party shall have the right at any time to institute judicial proceedings against the other Party or anyone acting by, through or under such other Party, in order to enforce the instituting Party's rights hereunder through reformation of contract, specific performance, injunction or similar equitable relief.

13.4 Amendment and Waiver. This Agreement may not be amended, nor any rights hereunder waived, except in a writing signed by the properly authorized representatives of each Party. The waiver by either Party of a breach or a default of any provision of this Agreement by the other Party shall not be construed as a waiver of any succeeding breach of the same or any other provision, nor shall any delay or omission on the part of either Party to exercise or avail itself of any right, power or privilege that it has or may have hereunder operate as a waiver of any right, power or privilege by such Party.

13.5 Notices. Any notice required or provided for by the terms of this Agreement shall be in writing, in the English language, and shall be (a) sent by certified mail, return receipt requested, postage prepaid, (b) sent via a reputable overnight air courier service, or (c) delivered by hand. Notices shall be effective when delivered to the addressee at the address listed in the first paragraph of this Agreement or such other address as the addressee shall have specified in the manner provided in this Section 13.5. The effective date of the notice shall be the actual date of receipt by the receiving Party.

13.6 No Agency. Nothing herein shall be deemed to constitute either Party as the agent or representative of the other Party or both Parties as joint venturers or partners for any purpose. Neither Party shall be responsible for the acts or omissions of the other Party, and neither Party will have authority to speak for, represent or obligate the other Party in any way without prior written authority from the other Party. Except for the Calando Indemnitees and the Cerulean Indemnitees, no person shall be a third party beneficiary of this Agreement.

13.7 Entire Agreement. This Agreement contains the full understanding of the Parties with respect to the subject matter hereof and supersedes all prior understandings and writings relating thereto, including the Prior Confidentiality Agreement; provided, however, that the Parties agree and acknowledge that the IT-101 Agreement, the Escrow Agreement and the Caltech Side Letter are being entered into concurrently herewith or have been entered into prior to the Effective Date and shall remain in effect.

13.8 Force Majeure. Neither Party will be held liable or responsible to the other Party nor be deemed to have breached this Agreement for failure or delay in fulfilling or performing any provision of this Agreement when such failure or delay results from causes beyond the reasonable control of the affected Party, which may include embargoes, acts of war (whether declared or not), insurrections, riots, civil commotions, acts of terrorism, strikes, lockouts or other labor disturbances, or acts of God. The affected Party will notify the other Party of such force majeure circumstances as soon as reasonably practical and will make every reasonable effort to mitigate the effects of such force majeure circumstances.

13.9 Severability. If any provision of this Agreement is held by a court of competent jurisdiction to be unenforceable because it is invalid or in conflict with any law of any relevant jurisdiction, the validity of the remaining provisions shall not be affected, and the rights and obligations of the Parties shall be construed and enforced as if the Agreement did not contain the particular provisions held to be unenforceable.

13.10 Export Compliance. The Parties acknowledge that the exportation from the United States of materials, products and related technical data (and the re-export from elsewhere of United States origin items) may be subject to compliance with United States export laws. Each Party shall comply with all applicable laws (whether U.S. or foreign) relating to the export, re-export, or release of any materials, products or their related technical data.

13.11 Counterparts and Facsimile Signatures. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. This Agreement may be executed by facsimile signature.

13.12 Construction. In construing this Agreement, unless expressly specified otherwise;

(a) references to Sections and Exhibits are to sections of, and exhibits to, this Agreement;

(b) use of either gender includes the other gender, and use of the singular includes the plural and vice versa;

(c) headings and titles are for convenience only and do not affect the interpretation of this Agreement;

(d) any list or examples following the word “include” or “including” shall be interpreted without limitation to the generality of the preceding words; and

(e) the language used in this Agreement shall be deemed to be the language chosen by the Parties to express their mutual intent, and no rule of strict construction shall be applied against either Party.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the Parties hereto have caused this Platform Agreement to be executed as a sealed instrument in their names by their properly and duly authorized officers or representatives as of the date first above written.

CERULEAN PHARMA INC.

By: /s/ Oliver Fetzer
Name: Oliver Fetzer
Title: Chief Executive Officer

CALANDO PHARMACEUTICALS, INC.

By: /s/ Christopher Anzalone
Name: Christopher Anzalone
Title: Chief Executive Officer

Arrowhead Research Corporation, hereby (a) guarantees Calando's performance under this Agreement, (b) makes the same representations and warranties to Cerulean as Calando makes to Cerulean under Section 9.1 and clauses (i)-(k) of Section 9.2, and (c) agrees to indemnify Cerulean to the same extent as Calando indemnifies Cerulean pursuant to Section 10.2 from any Losses relating to or in connection with a Third Party claim arising out of any breach by Arrowhead of its representations or warranties as described in clause (b), and for which indemnification Calando and Arrowhead shall be jointly and severally liable to Cerulean and the Cerulean Indemnitees.

ARROWHEAD RESEARCH CORPORATION

By: /s/ Christopher Anzalone
Name: Christopher Anzalone
Title: Chief Executive Officer

Exhibit 10.2

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT UNDER RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934.

IT-101 AGREEMENT

THIS IT-101 AGREEMENT ("Agreement"), dated as of June 23, 2009 (the "Effective Date"), is by and between CALANDO PHARMACEUTICALS, INC., a Delaware corporation having its principal place of business at 129 North Hill Avenue, Pasadena, California 91106 (hereinafter referred to as "Calando"), and CERULEAN PHARMA INC., a Delaware corporation, having its principal place of business at 161 First Street, Cambridge, Massachusetts 02142 (hereinafter referred to as "Cerulean").

INTRODUCTION

WHEREAS, Calando has developed IT-101 (as defined below); and

WHEREAS, Cerulean is engaged in the research, development and commercialization of nanopharmaceuticals and desires to develop and commercialize IT-101 upon the terms and conditions set forth herein;

NOW, THEREFORE, in consideration of the mutual covenants and promises contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Calando and Cerulean agree as follows:

SECTION 1. DEFINITIONS

As used in this Agreement, the following terms, whether used in the singular or plural, shall have the following meanings:

1.1 "Affiliate" means any entity which directly or indirectly controls, is controlled by or is under common control with another entity. For purposes of this Section 1.1, "control" means (a) in the case of corporate entities, direct or indirect ownership of at least fifty percent (50%) of the stock or shares entitled to vote for the election of directors and (b) in the case of non-corporate entities, direct or indirect ownership of at least fifty percent (50%) of the equity interest with the power to direct the management and policies of such non-corporate entities. The Parties acknowledge that, in the case of certain entities organized under the laws of certain countries, the maximum percentage ownership permitted by law for a foreign investor may be less than fifty percent (50%), and in such case such lower percentage shall be substituted in the preceding sentence; provided, that such foreign investor has the power to direct the management and policies of such entity.

1.2 "Annual Net Sales" means the worldwide aggregate Net Sales of the Licensed Product during a calendar year.

1.3 "Arrowhead" means Arrowhead Research Corporation, a Delaware corporation.

1.4 "Assigned IP" means (a) the Assigned Patent Rights; (b) the Patent Files (as defined in the Platform Agreement); (c) all inventions disclosed in the Assigned Patent Rights (other than those disclosed as prior art of a Third Party); and (d) the right to recover for past infringement of the Assigned Patent Rights.

1.5 “Assigned Patent Rights” means the Patent Rights set forth in Exhibit A and all Counterparts thereof.

1.6 “Calando Indemnitees” means Calando, its Affiliates, and the agents, directors, officers and employees of Calando and its Affiliates.

1.7 “Calando Liabilities” means any and all liabilities or obligations (whether known or unknown, absolute or contingent, liquidated or unliquidated, due or to become due and accrued or unaccrued, and whether claims with respect thereto are asserted before or after the Effective Date) of Calando.

1.8 “Caltech” means California Institute of Technology.

1.9 “Caltech Agreement” means that License Agreement between Caltech and Calando (formerly known as Insert Therapeutics, Inc.), dated May 22, 2000, as amended on December 10, 2001, January 13, 2003 and June 19, 2009.

1.10 “Caltech Joint Patent Rights” means the subset of the Licensed Patent Rights set forth in Exhibit B and all Counterparts thereof.

1.11 “Caltech Sole Patent Rights” means the subset of the Licensed Patent Rights set forth in Exhibit C and all Counterparts thereof.

1.12 “Cerulean Indemnitees” means Cerulean, its Affiliates, and the agents, directors, officers and employees of Cerulean and its Affiliates.

1.13 “Change of Control” means (a) the closing of a merger, tender offer, share exchange, reorganization, consolidation or other similar transaction involving Cerulean in which the persons who beneficially own Cerulean’s voting securities immediately prior to such transaction would, immediately after such transaction, beneficially own less than fifty percent (50%) of the voting securities of the surviving entity; or (b) a sale or other transfer to a Third Party of all or substantially all of Cerulean’s assets or business relating to this Agreement. For purposes hereof, “beneficial ownership” shall have the meaning provided in Rule 13d-3 under the Securities Exchange Act of 1934.

1.14 “Clinical Trial” means any clinical trial of the Licensed Product or any other administration of the Licensed Product prior to receipt of a Regulatory Approval.

1.15 “Collective Patent Rights” means the Assigned Patent Rights and the Licensed Patent Rights.

1.16 “Combination Therapy” means the Licensed Product and a separate pharmaceutical product sold by Cerulean or its Affiliates in combination for co-administration.

1.17 “Commercially Reasonable Efforts” means, with respect to the Licensed Product, taking such actions, exerting such effort and employing such resources as would normally be taken, exerted or employed by a comparably-sized company in the biotechnology industry for a product of similar market potential at a similar stage of its product life as the Licensed Product, taking into account the phase of development of, and technical risks relating to, the product, the development and proprietary positions of third parties, the regulatory structure involved, the

likely cost of goods, the competitiveness and size of the relevant marketplace, and the potential profitability of the product, when utilizing sound and reasonable scientific, business and medical practice and judgment.

1.18 "Confidential Information" means, with respect to a Party (the "Disclosing Party") all proprietary information, patentable or otherwise, of the Disclosing Party (whether owned by the Disclosing Party or disclosed by a Third Party to the Disclosing Party under an obligation of confidentiality) which is disclosed by or on behalf of such Party to the other Party (the "Receiving Party") pursuant to and in contemplation of this Agreement, including information pertaining to chemical substances, therapeutic agents, pharmaceutical compositions, drug delivery systems, formulations, processes, techniques, methodologies, data, reports, know-how, expertise, sources of supply, patent positioning and business plans. Confidential Information of the Disclosing Party includes "Proprietary" Information of the "Discloser", each as defined in the Prior Confidentiality Agreement. The elements of Assigned IP described in Sections 1.4(a), (b) and (c) shall be treated as Confidential Information of Cerulean, except to the extent that they have been or are later disclosed by the publication of any patent or patent application. Any sublicense agreements disclosed by a Party to the other Party pursuant to Section 3.2 shall be treated as Confidential Information of the Party entering into such sublicense agreement.

1.19 "Control" or "Controlled" means, with respect to an entity and an item of Know-How or any intellectual property right, the possession of the right (whether by ownership, license or otherwise (other than pursuant to a license granted under this Agreement)) by such entity or its Affiliates, to assign, or grant a license, sublicense or other right to or under, such Know-How or intellectual property right as provided for herein without violating the terms of any agreement or other arrangement with any Third Party.

1.20 "Counterparts" means:

(a) with respect to a patent, the following items, collectively: any patent applications from which such patent issued, and all patents and patent applications described in clause (b) with respect to each such patent application;

(b) with respect to a patent application (including any provisional application), the following items, collectively: (i) all divisionals, continuations and continuations-in-part of such patent application; (ii) any patents (including certificates of correction) issuing from such patent application or any patent application described in clause (i); (iii) all patents and patent applications based on, corresponding to or claiming the priority date(s) of any of the patents and patent applications described in clauses (i) or (ii); (iv) any substitutions, extensions (including supplemental protection certificates), registrations, confirmations, reissues, re-examinations and renewals of any of the patents described in clauses (ii) or (iii); and (iv) foreign counterparts of any of the foregoing.

1.21 "Covered" means, with respect to the Licensed Product and a particular patent, that, but for a license granted to a Party under a Valid Claim included in such patent, or, with respect to an Assigned Patent Right, but for the assignment of such patent, the manufacture, use, offer for sale, sale or importation of the Licensed Product would infringe such Valid Claim.

1.22 "Cyclodextrin System" means any cyclodextrin-based polymer drug delivery system developed by Calando prior to the Effective Date and any improvements thereto developed during the Term.

1.23 "FDA" means the United States Food and Drug Administration or any successor agency thereto.

1.24 "Field" means the treatment and/or prevention of disease in humans.

1.25 "First Commercial Sale" means, with respect to the Licensed Product in a country, the first bona fide sale of the Licensed Product following the first receipt of a Regulatory Approval for the Licensed Product to permit use or consumption of the Licensed Product by the general public in such country. Transfers of Licensed Product for Clinical Trial purposes shall not be considered a First Commercial Sale.

1.26 "HIPAA" means the Health Information Portability and Accountability Act, as amended.

1.27 "IND" means a United States investigational new drug application or its equivalent or any corresponding application of another country.

1.28 "IT-101" means the product described on Exhibit E.

1.29 "IT-101 IND" means IND **[***]**.

1.30 "Know-How" means any ideas, concepts, discoveries, developments, information and inventions, whether or not patentable, including materials, products, laboratory, pre-clinical and clinical data, expertise, know-how, processes, techniques, any other scientific or technical information and Regulatory Documentation.

1.31 "Knowledge" means (a) with respect to Calando, the actual knowledge of the following individuals (together with any knowledge that a person in such person's position would be expected to obtain given the exercise of reasonably prudent scientific and business diligence in accordance with the standards of companies in the biotechnology industry): **[***]** (collectively, the "Calando Representatives"); and (b) with respect to Cerulean, the actual knowledge of the following individuals (together with any knowledge that a person in such person's position would be expected to obtain given the exercise of reasonably prudent scientific and business diligence in accordance with the standards of companies in the biotechnology industry): **[***]**.

1.32 "Licensed IP" means, collectively, the Licensed Know-How and Licensed Patent Rights.

1.33 "Licensed Know-How" means all Know-How Controlled by Calando as of the Effective Date or during the Term which both (a) relates to the Cyclodextrin System and/or Calando's research and development of Other Licensed Products or IT-101 and (b) is necessary or reasonably useful to (i) conduct research and development on the Cyclodextrin System, including making improvements thereto, or (ii) research, develop, make, have made, use, market, offer to sell, distribute, sell and/or import the Other Licensed Products or IT-101. Without limiting the generality of the foregoing, Licensed Know-How shall include all Know-How developed, applied or acquired by Calando prior to the Effective Date that (A) pertains to the use of the Cyclodextrin System, (B) is a process for manufacturing the cyclodextrin polymer, or precursors thereto, employed in the Cyclodextrin System, (C) is a process for conjugating or complexing therapeutic agents to the cyclodextrin polymer employed in the Cyclodextrin System, or (D) is data generated by Calando in its research and development of the Other Licensed Products or IT-101.

1.34 "Licensed Patent Rights" means all Patent Rights Controlled by Calando as of the Effective Date or during the Term which both (a) relate to the Cyclodextrin System and/or Calando's research and development of Other Licensed Products or IT-101 and (b) are necessary or reasonably useful to (i) conduct research and development on the Cyclodextrin System, including making improvements thereto, or (ii) research, develop, make, have made, use, market, offer to sell, distribute, sell and/or import the Other Licensed Products or IT-101. Without limiting the generality of the foregoing, Licensed Patent Rights shall include the Caltech Joint Patent Rights, the Caltech Sole Patent Rights and the RNAi Patent Rights. For the sake of clarity, the Licensed Patent Rights exclude the Assigned Patent Rights.

1.35 "Licensed Product" means IT-101 formulated for intravenous, intraarterial, intrathecal and/or intraperitoneal therapy.

1.36 "NDA" means a United States new drug application or its equivalent or any corresponding application of another country.

1.37 "Net Sales" means, with respect to the Licensed Product, the gross amount invoiced by Cerulean or its Affiliates on sales or other dispositions of the Licensed Product to a Third Party less the sum of (a) commercially reasonable trade, cash and quantity discounts, (b) credit or allowances given or made for recall, rejection or return of previously sold Licensed Products, (c) commercially reasonable rebates, chargebacks or retroactive price reductions, (d) out of pocket charges for insurance, postage, handling, freight and other transportation costs which are invoiced by Cerulean or its Affiliates, (e) government-mandated rebates and (f) customs, duties, surcharges, sales, transfer and other excise taxes levied on the sale, transportation, delivery or use of such Licensed Product, including any tax such as a value added or similar tax or government charge, borne by the seller thereof, other than franchise or income tax of any kind whatsoever.

Net Sales shall not include any transfers of the Licensed Product for clinical trial purposes or any transfers of reasonable quantities of the Licensed Product as samples or as donations.

Net Sales shall not include any transfer between Cerulean and any of its Affiliates for resale. If Cerulean or an Affiliate sells the Licensed Product to a distributor or other Third Party, Net Sales shall be based on the gross amount invoiced by Cerulean or the Affiliate from the sale of Licensed Product to such distributor or Third Party.

If Cerulean or any of its Affiliates makes a sale of the Licensed Product for other than monetary value, such Licensed Product shall be deemed sold hereunder. The gross revenues to be included in Net Sales for any such deemed sales shall be the average price of "arms length" sales by Cerulean and its Affiliates during the calendar quarter in which such deemed sale occurs or, if no such "arms length" sales occurred during such period, during the last calendar quarter in which such "arms length" sales occurred.

If the Licensed Product is sold in combination with another pharmaceutical product as part of a Combination Therapy in a country, then, for the purpose of calculating royalties owed under this Agreement on sales of such Licensed Product, Net Sales shall be the lesser of:

(i) Net Sales of such Licensed Product in such country, or

(ii) the product of:

(A) Net Sales of such Combination Therapy (calculated applying the definition of Net Sales hereunder to such Combination Therapy in the same manner as applied to Licensed Product) in such country, and

(B) the fraction A/(A+B), where A is the average invoice price of such Licensed Product in such country, and B is the average invoice prices of the other pharmaceutical product(s) in such Combination Therapy in such country; provided, however, that, if in a specific country the other pharmaceutical product(s) in such Combination Therapy are not sold separately in such country but the Licensed Product is sold separately in such country, the fraction shall be A/C, where A is the average invoice price of the Licensed Product in such country and C is the invoice price of the Combination Therapy; provided, further, however, that, if in a specific country the Licensed Product is not sold separately in such country but the other pharmaceutical products are sold separately in such country, the fraction shall be C-B/C, where B is the average invoice price of the other pharmaceutical product(s) in the Combination Therapy in such country and C is the invoice price of the Combination Therapy in such country; and provided, further, however, that, if in a specific country neither the Licensed Product nor any of the other pharmaceutical products are sold separately in such country, then the fraction shall be negotiated in good faith by the Parties.

1.38 "Other Licensed Product" means any product licensed to Cerulean pursuant to the Platform Agreement.

1.39 "Party" means Calando or Cerulean; "Parties" means Calando and Cerulean.

1.40 "Patent Right" means any patent application (including any provisional application) or patent, and any Counterpart thereof.

1.41 "Phase 1 Clinical Trial" means a human clinical trial that is intended to initially evaluate the safety, tolerance or pharmacological or antigenic effects of the Licensed Product in human subjects, or that is otherwise described in 21 CFR 312.21(a) or its foreign counterpart.

1.42 "Phase 2 Clinical Trial" means a human clinical trial that is intended to initially evaluate the dosing and effectiveness of the Licensed Product, or that is otherwise described in 21 CFR 312.21(b) or its foreign counterpart.

1.43 "Phase 3 Clinical Trial" means a human clinical trial that is prospectively designed to demonstrate statistically whether the Licensed Product is safe and effective to prevent or treat a particular indication in a manner sufficient to obtain Regulatory Approval to market the Licensed Product, or that is otherwise described in 21 CFR 312.21(c) or its foreign counterpart.

1.44 "Platform Agreement" means the Platform Agreement entered into by the Parties on the Effective Date.

1.45 "Prior Confidentiality Agreement" means the Mutual Confidentiality Agreement between the Parties dated February 4, 2009.

1.46 "Regulatory Approval" means, with respect to the Licensed Product in a country or regulatory jurisdiction, any and all approvals (including any applicable governmental price and reimbursement approvals), licenses, registrations, or authorizations of the relevant Regulatory Authority necessary for the manufacture, use, storage, import, transport, promotion, marketing and sale of the Licensed Product in such country, including approvals of NDAs.

1.47 "Regulatory Authority" means any applicable government regulatory authority involved in granting approvals for the marketing and/or pricing of a pharmaceutical product in a country or regulatory jurisdiction, including the FDA and foreign equivalents thereof.

1.48 "Regulatory Documentation" means, with respect to IT-101, the IT-101 IND, all information and documentation supporting the IT-101 IND, and all information or documentation filed, or otherwise communicated to the FDA, in support of, or otherwise in connection with, the IT-101 IND, including all laboratory, preclinical, clinical and manufacturing data, information and reports; drug dossiers; master files; reports; records; investigator brochures; protocols; informed consents; sponsor and investigator forms; amendments; correspondence and other documentation.

1.49 "Relevant Agreement" means each agreement, other than a confidentiality agreement, between Calando and an Affiliate of Calando or a Third Party currently in effect, whether or not relating to the Licensed Product, including any agreement regarding evaluation, research, development, collaboration, material transfer, manufacture, license, joint venture, non-competition, clinical trial, lease of real property or equipment, line of credit, bank loan or other loan.

1.50 "Required Third Party Payments" means payments (including upfront payments, annual maintenance fees, milestones and earned royalties) made by Cerulean or any of its Affiliates to a Third Party to license Know-How or Patent Rights in order to research, develop, make, have made, use, market, offer to sell, distribute, sell and import the Licensed Product in the Field.

1.51 "Requisite Debt Holder Consent and Release" means that each holder of a promissory note of which Calando is the maker (each a "Note" and, collectively, the "Notes") has irrevocably, in writing, (a) consented to the transactions contemplated by this Agreement and (b) released Cerulean and its Affiliates from, and agreed not to assert against Cerulean or its Affiliates or any of their respective assets (including the Licensed IP, Assigned IP and the Inventory), any Liens, claims, rights or other interests it has or may have (i) in connection with or as a result of the transactions contemplated hereby, (ii) in, against or relating to any of the Licensed IP, Assigned IP and the Inventory and/or (iii) relating to the Notes or any stock into which the Notes can be converted.

1.52 "Requisite Stockholder Approval" means the approval of the license of the Licensed Patent Rights and Licensed Know-How and sale of the Assigned IP and the Inventory by Calando to Cerulean as contemplated by this Agreement by (a) a majority of the votes represented by the outstanding shares of capital stock of Calando entitled to vote thereon and (b) a majority of the votes represented by the outstanding shares of capital stock of Calando entitled to vote thereon, other than shares of such capital stock held by Arrowhead.

1.53 "RNAi Patent Rights" means the subset of the Licensed Patent Rights set forth in Exhibit D and all Counterparts thereof.

1.54 "Sublicense Income" means all amounts received by Cerulean or any of its Affiliates to the extent attributable to a license or sublicense granted to a Third Party of any of the Assigned Patent Rights, Licensed Patent Rights or Licensed Know-How (such Third Party, a

"Sublicensee"), including upfront payments, annual maintenance fees, milestone payments (including for development, performance and sales milestones) and earned royalties, but:

(a) amounts received by Cerulean or its Affiliates as payments for performing research, development (other than development milestone payments referenced in the foregoing paragraph of this Section 1.54), manufacturing or commercialization activities undertaken by Cerulean or any of its Affiliates for, or in collaboration with, such Sublicensee will be excluded; provided, that such deduction to Sublicense Income is an amount no greater than the fully-burdened cost for Cerulean or its Affiliates in performing such activities and all out-of-pocket costs paid by Cerulean or its Affiliates to Third Parties in connection with such activities;

(b) amounts received by Cerulean or its Affiliates from such Sublicensee as the purchase price for Cerulean's or any of its Affiliates' debt or equity securities will be excluded; provided, that, with respect to any such securities which are publicly traded on any securities exchange or NASDAQ, such deduction to Sublicense Income is an amount no greater than the fair market value of such debt or equity securities;

(c) if such Sublicensee will also pay an earned royalty on its sale of a Licensed Product, then amounts paid by such Sublicensee to Cerulean or its Affiliates as a transfer price to purchase the relevant Licensed Product or any component thereof will be excluded; and

(d) if such Sublicensee will not also pay an earned royalty on its sale of a Licensed Product, then amounts paid by such Sublicensee to Cerulean or its Affiliates as a transfer price to purchase the relevant Licensed Product or any component thereof will be excluded, but only up to the actual cost of goods of such Licensed Product or component; provided, however, that, for the sake of clarity, any portion of such transfer price greater than the actual cost of goods shall not be so excluded.

1.55 "Third Party" means any person other than the Parties and their Affiliates.

1.56 "Valid Claim" means a claim of an unexpired issued patent which has not been withdrawn, cancelled or disclaimed nor held invalid or unenforceable by a court of competent jurisdiction in an unappealed or unappealable decision.

1.57 Other Defined Terms. The word "person" means any entity or individual. Each of the following definitions is set forth in the section of this Agreement indicated below:

Definition	Section
Arrowhead Guarantee	2.3(c)
Bankruptcy Code	3.3
Bill of Sale	2.3(e)
Breaching Party	12.2
Calando Representatives	1.32

Definition	Section
Caltech Side Letter	2.2(d)
Clinical Trial Investigator	9.2(l)
Clinical Trial Site	9.2(k)
Disclosing Party	1.18
Escrow Agent	8.7(a)
Escrow Agreement	8.7(a)
Expenditure	5.4(c)
FTE Hour	4.1(b)
Full Access Notebooks	8.7(b)
Initial Payment	5.1
Inventory	2.1(a)
Inventory Price	2.1(a)
Irvine	2.1(a)
Joint IP	7.1
Lien	2.2(g)
Losses	10.1
Non-Breaching Party	12.2
Non-Prosecuting Party	7.2(d)
Note(s)	1.51
Partial Access Notebooks	8.7(c)
Prosecuting Party	7.2(d)
Receiving Party	1.18
Required Coverage	2.2(q)
Restricted Access Notebooks	8.7(d)

Definition	Section
Royalty Payment Date	5.6
Safety Concern	12.1
Sale Event	13.1
Sublicensee	1.55
Term	12.1

SECTION 2. ASSET SALE AND TRANSFER

2.1 Inventory.

(a) Calando hereby irrevocably and unconditionally sells, transfers, conveys, assigns and delivers to Cerulean, and Cerulean hereby purchases from Calando, all right, title and interest in and to, (i) **[***]**, for an aggregate purchase price of **[***]** U.S. Dollars (US $**[***]**), (ii) the remaining **[***]** produced for **[***]** and having a **[***]**, for an aggregate purchase price of **[***]** U.S. Dollars (US $**[***]**), (iii) **[***]** produced for **[***]**, to be transferred **[***]** to Cerulean, (iv) **[***]** produced for **[***]** and having a **[***]**, to be transferred **[***]** to Cerulean, (v) **[***]** produced for **[***]** and having a **[***]**, to be transferred **[***]** to Cerulean, and (vi) the IT-101 drug substance and drug product with which **[***]** or its relevant Affiliate ("**[***]**") is conducting stability studies, and the retain samples of IT-101 drug substance and drug product being held by **[***]**, each to be transferred **[***]** to Cerulean (such material, collectively, the "Inventory"). The total purchase price of **[***]** U.S. Dollars (US **$[***]**) (the "Inventory Price") shall be paid by Cerulean to Calando on the Effective Date via wire transfer of immediately available funds to an account designated by Calando.

(b) The Parties agree and acknowledge that Cerulean's payment for the Inventory is in addition to the Initial Payment and is inclusive of all excise, sales, use, transfer and other taxes and duties (if any) imposed with respect to the Inventory or its sale by any governmental authority (all of which shall be the responsibility of, and will be paid by, Calando).

(c) Title to and possession of the Inventory will be delivered to Cerulean, free and clear of any encumbrances, on the Effective Date in its current location and condition at the premises of **[***]** or one of its Affiliates ("**[***]**") in **[***]**. Cerulean shall be responsible for all expenses and fees related to the storage, removal and transportation of the Inventory from and after the Effective Date, while Calando shall be responsible for all expenses and fees related to the storage, removal and transportation of the Inventory prior to the Effective Date. Risk of loss or damage, liability for, and responsibility to insure the Inventory will pass to Cerulean on the Effective Date.

2.2 Calando Closing Conditions. Unless waived by Cerulean, as of the Effective Date, Calando shall have:

(a) obtained the Requisite Stockholder Approval and the Requisite Debt Holder Consent and Release;

(b) delivered to Cerulean a certificate of good standing of Calando in its jurisdiction of organization and the various foreign jurisdictions in which it is qualified, certified charter documents and a certificate as to the incumbency of officers and the adoption of authorizing resolutions;

(c) provided Cerulean with a guarantee and indemnification from Arrowhead, in form and substance reasonably acceptable to Cerulean, in which Arrowhead (i) guarantees Calando's performance under this Agreement, (ii) makes the same representations and warranties to Cerulean as Calando makes to Cerulean under Section 9.1 or clauses (h)-(j) of Section 9.2, and (iii) agrees to indemnify Cerulean to the same extent as Calando indemnifies Cerulean pursuant to Section 10.2 from any Losses relating to or in connection with a Third Party claim arising out of any breach by Arrowhead of its representations or warranties as described in clause (ii), and for which indemnification Calando and Arrowhead shall be jointly and severally liable to Cerulean and the Cerulean Indemnitees (the "Arrowhead Guarantee");

(d) provided to Cerulean a letter agreement executed by Calando and Caltech in the form attached as Exhibit F (the "Caltech Side Letter");

(e) executed and delivered to Cerulean a bill of sale substantially in the form attached hereto as Exhibit G (the "Bill of Sale") and such other instruments of conveyance as Cerulean may reasonably request in order to effect the sale, transfer, conveyance and assignment to Cerulean of valid ownership to the Inventory;

(f) recertified the Inventory prior to the Effective Date in accordance with the testing procedures proscribed by Cerulean, and provided Cerulean with the results thereof;

(g) supplied Cerulean with documentation, in form and substance reasonably acceptable to Cerulean, pursuant to which the appropriate Affiliate of **[***]** acknowledges that the ownership of the Inventory has been transferred to Cerulean and releases such Inventory from any claim, liability, mortgage, pledge, security interest, encumbrance, license, charge, encumbrance or other lien of any kind (whether arising by contract or by operation of law) (each, a "Lien");

(h) supplied Cerulean with documentation, in form and substance reasonably acceptable to Cerulean, pursuant to which the appropriate Affiliate of **[***]** acknowledges that the ownership of the Inventory with which it is conducting stability studies and the ownership of the retain samples included in the Inventory have been transferred to Cerulean, releases such Inventory from all Liens and transitions to Cerulean all rights with respect to the stability studies it is conducting on the Inventory and with respect to such retain samples;

(i) made available to Cerulean copies of all laboratory notebooks, raw data, summary data and reports pertaining to the research, development or manufacture of the Licensed Product, it being understood that the terms and conditions of Section 8.7 shall apply with respect to the laboratory notebooks;

(j) supplied Cerulean with letters of access, in form and substance reasonably acceptable to Cerulean, addressed to all Third Party contractors and vendors identified by Cerulean pertaining to the research, development or manufacture of the Licensed Product, it being understood that the letter of access for **[***]** shall be supplied subsequent to the Effective Date;

(k) supplied Cerulean with documentation, in form and substance reasonably acceptable to Cerulean, evidencing the proper shut-down or transitioning of all sites at which Clinical Trials were conducted by Calando on IT-101 or which were contracted by Calando for the conduct of Clinical Trials on IT-101, including documentation regarding the proper destruction or return of all IT-101 drug product from the shut-down sites, it being understood that the documentation regarding the proper shut-down of the **[***]** site and the destruction or return of all IT-101 drug product from the **[***]** site shall be supplied subsequent to the Effective Date;

(l) supplied Cerulean with documentation, in form and substance reasonably acceptable to Cerulean, evidencing the proper shut-down or transitioning of all clinical research organizations performing services in connection with the Clinical Trials for IT-101, it being understood that the documentation regarding the proper shut-down of **[***]** shall be supplied subsequent to the Effective Date;

(m) filed with the FDA the annual report due in May 2009 with respect to the Clinical Trials for IT-101 and provided Cerulean with a true and complete copy of all Regulatory Documentation generated on or before the Effective Date with respect to IT-101, it being understood that any Regulatory Documentation possessed solely by Peptagen, Inc. shall be delivered subsequent to the Effective Date;

(n) submitted documentation, substantially in the form of Exhibit H, to the FDA to transfer ownership of the IT-101 IND to Cerulean; and

(o) purchased from a member of the Chubb Group of Insurance Companies a tail to Calando's clinical trial insurance, in an amount of [***] combined single limit, to cover all liabilities arising from the Clinical Trials of IT-101 conducted by or on behalf of Calando on or before the Effective Date (the "Required Coverage"), it being understood that evidence of Required Coverage, in the form of a certificate of insurance, shall be supplied subsequent to the Effective Date.

2.3 Cerulean Closing Conditions. As of the Effective Date, Cerulean shall have:

(a) delivered to Calando a certificate of good standing of Cerulean in its jurisdiction of organization and the various foreign jurisdictions in which it is qualified and a certificate as to the incumbency of officers and the adoption of authorizing resolutions;

(b) executed and delivered to Calando the CalTech Side Letter; and

(c) executed and delivered to Calando the Bill of Sale.

2.4 Calando Post-Closing Covenants. As promptly as practicable after the Effective Date, at the expense of Calando, Calando shall:

(a) deliver to Cerulean a final report for the Phase 1 Clinical Trial for IT-101 which is fully compliant with all applicable laws and regulations and otherwise meets industry standards for reports of such type and which is in a format for filing with the FDA; and

(b) supply Cerulean with all clinical data from the [***] site, with the documentation regarding the proper shut-down of PharmaLinkFHI, Inc. and the [***] site, with the documentation regarding the destruction or return of all IT-101 drug product from the [***] site, with the letter of access for [***], and with any Regulatory Documentation obtained by Calando from [***] subsequent to the Effective Date.

2.5 Regulatory Documentation. From and after the Effective Date, Cerulean shall own, and Calando hereby assigns to Cerulean all right, title and interest in and to, all Regulatory Documentation regarding the Licensed Product and all intellectual property rights therein.

2.6 Non-Assumption of Liabilities. Notwithstanding anything to the contrary, Cerulean shall not assume, or become responsible for, and Calando shall remain responsible for, the Calando Liabilities.

SECTION 3. LICENSES

3.1 Grant to Cerulean. Calando hereby grants to Cerulean an exclusive (even as to Calando, but subject to Section 12.2(b)), transferable (as permitted pursuant to Section 13.1), irrevocable and perpetual (subject to each Party's termination rights in Section 12), royalty-bearing, worldwide license, with the right to grant sublicenses, under the Licensed Patent Rights and under all intellectual property rights in the Licensed Know-How, solely in order to (a) research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field, and (b) use, copy, modify and distribute the Licensed Know-How for such purposes.

3.2 Sublicenses. All sublicenses granted pursuant to Section 3.1 shall be consistent with the terms and conditions of this Agreement and Cerulean shall incorporate terms and conditions into its sublicense agreements sufficient to enable Cerulean to comply with this Agreement. Cerulean shall furnish Calando with a copy of each executed sublicense agreement within ten (10) business days after its execution.

3.3 Section 365(n) of the Bankruptcy Code. All rights and licenses granted under or pursuant to any section of this Agreement are and shall otherwise be deemed to be for purposes of Section 365(n) of the Bankruptcy Code licenses of rights of "intellectual property" as defined in Section 101(35A) of the United States Bankruptcy Code (Title 11, U.S.C.), as amended (the "Bankruptcy Code"). The Parties shall retain and may fully exercise all of their respective rights and elections under the Bankruptcy Code. Upon the bankruptcy of a Party, the non-bankrupt Party shall further be entitled to a complete duplicate of, or complete access to, any such intellectual property, and such, if not already in its possession, shall be promptly delivered to the non-bankrupt Party, unless the bankrupt Party elects to continue, and continues, to perform all of its obligations under this Agreement.

3.4 Patent Marking. Cerulean shall mark the appropriate U.S. patent number(s) on Licensed Products made or sold in the United States in accordance with all applicable government laws, rules and regulations.

SECTION 4. POST-CLOSING ASSISTANCE AND COVENANTS

4.1 Technology Transfer.

(a) Within the first twelve (12) months following the Effective Date, Calando shall, and shall cause its employees to provide to Cerulean, upon Cerulean's request, such scientific, technical and other assistance as is reasonably necessary for Cerulean to exploit the Licensed Know-How; provided, however, that this Section 4.1(a) shall not require Calando to

maintain employment of any employees; provided, further, that Calando shall use commercially reasonable efforts to assist Cerulean in entering into employment or consulting arrangements (at Cerulean's sole cost) with any former employees of Calando. In addition, Calando shall reasonably assist Cerulean in interacting with Calando's Third Party contractors and vendors to facilitate Cerulean's ability to develop the Licensed Product and exploit the Licensed Know-How; provided, that Calando makes no representations or warranties as to such Third Party contractors' or vendors' intentions to conduct business with Cerulean following the Effective Date. To the extent that Cerulean hires or engages the services of any former employee of Calando or any Third Party contractor or vendor of Calando for purposes contemplated under this Agreement, Calando hereby waives any obligations of confidentiality or non-use or any non-competition restrictions imposed on such employees, contractors or vendors to the extent that they pertain to the Licensed Product or use of the Cyclodextrin System in connection with the Licensed Product.

(b) Cerulean shall reimburse Calando (i) for the assistance described in Section 4.1(a) at the rate of **[***]** U.S. *Dollars (US* $**[***]**) for each hour of scientific, technical or other work in providing such assistance (each, an "FTE Hour") and (ii) for all reasonable out-of-pocket expenses incurred by Calando in providing such assistance, to the extent such assistance and expenses have been approved by Cerulean in writing in advance of incurrence. Within thirty (30) days after the end of each calendar month during such twelve (12) month period, Calando shall provide to Cerulean a report of the number of FTE Hours actually devoted, and the expenses actually incurred, by Calando for such assistance during such just-ended calendar month, and an invoice for the amount to be reimbursed by Cerulean as provided hereunder. Cerulean shall pay such invoice within fifteen (15) days after receipt. For the sake of clarity, there shall be no double payments for any assistance which may be provided under both this Agreement and the Platform Agreement.

(c) Calando shall keep true and accurate books of accounts and other records containing all information and data which may be necessary to ascertain and verify the amounts payable under this Section 4.1. During the first eighteen (18) months after the Effective Date, Cerulean shall have a one-time right to have an independent certified public accountant inspect such books and records of Calando. Any such independent certified accountant shall be reasonably acceptable to Calando, shall execute a standard form of confidentiality agreement with Calando, and shall be permitted to share with Cerulean solely its findings with respect to the accuracy of the amounts reported as payable under this Section 4.1.

4.2 Caltech Agreements.

(a) Calando shall not amend, restate, alter, waive or otherwise change any of the terms and conditions of the Caltech Agreement or Caltech Side Letter without the prior written approval of Cerulean, which approval shall not be unreasonably withheld, conditioned or delayed. Calando shall provide Cerulean with a copy of any proposed or executed amendment, restatement, alteration, waiver or other change of the terms and conditions of the Caltech Agreement or Caltech Side Letter. Further, Calando shall not assign (other than in connection with a Sale Event) or terminate the Caltech Agreement or Caltech Side Letter without the prior written approval of Cerulean, which approval shall not be unreasonably withheld, conditioned or delayed.

(b) Calando shall use commercially reasonable efforts to satisfy all of its obligations under and to take all steps necessary to maintain in full force and effect the Caltech Agreement or Caltech Side Letter. Calando shall provide Cerulean with written notice of any claim of a breach under, or any threat or notice of termination of, the Caltech Agreement or Caltech Side Letter.

4.3 Further Assurances. At any time and from time to time hereafter, each Party at the other Party's request and without further consideration, shall execute and deliver, or cause to be duly executed and delivered (including by its Affiliates and employees), such further instruments and do and cause to be done such further acts and things, including the filing of such assignments, agreements, documents and instruments, as may be necessary or as the requesting Party may reasonably request in connection with this Agreement or to carry out more effectively the provisions and purposes hereof, or to better assure and confirm the rights and remedies of the Parties under this Agreement, including to more effectively transfer, convey and assign to Cerulean, and to confirm Cerulean's title to, all of the Inventory, to put Cerulean in actual possession and control thereof, to assist Cerulean in exercising all rights with respect thereto and to carry out the purpose and intent of this Agreement. Other than those obligations expressly set forth herein, Cerulean shall not assume or agree to perform, pay or discharge, and Calando shall remain unconditionally liable, for the Calando Liabilities.

SECTION 5. FEES AND ROYALTIES

5.1 Fees. Cerulean shall pay Calando a one-time, non-refundable, non-creditable purchase and license fee in the amount of **[***]** U.S. Dollars (US $**[***]**) (the "Initial Payment"). In addition, Cerulean shall reimburse Calando for **[***]** U.S. Dollars ($**[***]**), which amount represents **[***]** percent (**[***]**%) of the cost of the Required Coverage. The foregoing amounts shall be distributed as follows: (a) **[***]** U.S. Dollars and **[***]** Cents (US $**[***]**) shall be paid by Cerulean directly to the applicable Third Parties as set forth in Exhibit I, on behalf of Calando, on the Effective Date; (b) **[***]** U.S. Dollars and **[***]** Cents (US $**[***]**) shall be paid by Cerulean to Calando via wire transfer of immediately available funds to an account designated by Calando, on the Effective Date; and (c) **[***]** U.S. Dollars (US $**[***]**) shall be paid by Cerulean to Calando via wire transfer of immediately available funds to an account designated by Calando within ten (10) days of Calando's having fulfilled the post-closing conditions set forth in Section 2.4.

5.2 Development Milestones.

(a) If the Licensed Product is developed by Cerulean or an Affiliate of Cerulean and reaches the following development milestones, Cerulean shall pay the applicable non-refundable milestone payment set forth below, subject to Section 5.2(b), within thirty (30) days of the occurrence of such event to Calando via wire transfer of immediately available funds to an account designated by Calando:

Milestone Event:	**Milestone Payment:**
(i) Initiation (first dosing of the first patient) of the first Phase 3 Clinical Trial	**[***]** U.S. Dollars (US $**[***]**)
(ii) The filing of the first NDA with any Regulatory Authority	**[***]** U.S. Dollars (US $**[***]**)
(iii) First Commercial Sale in any country	**[***]** U.S. Dollars (US $**[***]**)

(b) Such milestone payments shall be made only if, upon the occurrence of such milestone event, a Valid Claim of a Collective Patent Right exists in any country of the world. Each such payment shall be made no more than once. All development milestone payments made with respect to the Licensed Product shall be fully credited to all royalties due under Section 5.5 with respect to the Licensed Product.

5.3 Sales Milestones.

(a) If the Licensed Product is developed by Cerulean or an Affiliate of Cerulean and reaches the following sales thresholds, Cerulean shall pay the applicable non-refundable, non-creditable milestone payment set forth below, subject to Section 5.3(b), within thirty (30) days after the occurrence of such event to Calando via wire transfer of immediately available funds to an account designated by Calando:

Milestone Event:	**Milestone Payment:**
(i) Annual Net Sales of **[***]** U.S. Dollars (US $**[***]**)	**[***]** U.S. Dollars (US $**[***]**)
(ii) Annual Net Sales of **[***]** U.S. Dollars (US $**[***]**)	**[***]** U.S. Dollars (US $**[***]**)

(b) Such milestone payments shall be made only if, upon the occurrence of such milestone event, a Valid Claim of a Collective Patent Right exists in any country of the world. Each such payment shall be made no more than once.

5.4 Sublicense Income.

(a) With respect to Licensed Product developed and sold by a Sublicensee, Cerulean shall pay to Calando, subject to Section 5.4(b), a percentage of all Sublicense Income received from such Sublicensee (on a Sublicensee-by-Sublicensee basis), which percentage shall be determined in accordance with the table below depending on the state of development of the Licensed Product at the time that Cerulean first provides or receives draft terms of a sublicensing arrangement with such Sublicensee; provided, however, that, if discussions between Cerulean and such Sublicensee terminate and later restart at a different state of development, then the percentage shall be based on the later state of development of the Licensed Product:

Development State:	**Percentage of Sublicense Income:**
(i) Prior to the initiation (first dosing of the first patient) of a Phase 3 Clinical Trial and Cerulean's Expenditures are less than US $**[***]** (exclusive of the Inventory Price and the Initial Payment)	**[***]**%
(ii) Following the initiation (first dosing of the first patient) of a Phase 3 Clinical Trial, but before Regulatory Approval in any of the United States, Japan or any European country, and Cerulean's Expenditures are less than $**[***]** (exclusive of the Inventory Price, the Initial Payment and any milestones paid to Calando pursuant to Section 5.2)	**[***]**%

Development State:	Percentage of Sublicense Income:
(iii) Prior to Regulatory Approval in any of the United States, Japan or any European country and Cerulean's Expenditures are at least US $**[***]** but less than US $**[***]** (exclusive of the Inventory Price, the Initial Payment and any milestones paid to Calando pursuant to Section 5.2)	**[***]**%
(iv) Prior to Regulatory Approval in any of the United States, Japan or any European country and Cerulean's Expenditures are at least US $**[***]** (exclusive of the Inventory Price, the Initial Payment and any milestones paid to Calando pursuant to Section 5.2)	**[***]**%
(v) Following Regulatory Approval in any of the United States, Japan or any European country regardless of Cerulean's Expenditures	**[***]**%

(b) Such payments shall be made only if, at the time of Cerulean's or its Affiliate's receipt of Sublicense Income, a Valid Claim of a Collective Patent Right exists in any country of the world. The percentage of Sublicense Income due Calando for earned royalties (but not for upfront payments, milestones or maintenance fees) will be capped at the royalty rates under Section 5.5 that would apply if such sales were made by Cerulean or an Affiliate of Cerulean.

(c) "Expenditure" means the fully-burdened cost and all out-of-pocket costs incurred by Cerulean and its Affiliates in connection with all activities associated with the Licensed Product during their development of the Licensed Product. For purposes of calculating the fully burdened cost of Cerulean and its Affiliates, Cerulean shall use an annual FTE rate of $**[***]** (for 1800 hours of full-time equivalent work), which rate shall be subject to increase annually based on the percentage increase in the Consumer Price Index. For purposes of clarity, in no event shall Cerulean be entitled to count as part of its Expenditures diligence or transaction costs (including legal fees) expended on, or with respect to, IT-101 prior to the Effective Date.

5.5 Royalties.

(a) Base Rate.

(i) For each Licensed Product sold by Cerulean or an Affiliate of Cerulean, Cerulean shall pay to Calando (subject to Sections 5.2(b), 5.5(b), 5.5(c) and 5.5(d)) the following tiered earned royalties on Annual Net Sales of each Licensed Product whose manufacture, use or sale, at the time of sale and in the country of sale, is, or would be if such manufacture or use occurred in the country of sale, Covered by a Valid Claim of a Collective Patent Right:

Annual Net Sales Tiers:	Royalty Rate:
The portion of Annual Net Sales which is less than or equal to US $**[***]**	**[***]**%
The portion of Annual Net Sales which is greater than US $**[***]**	**[***]**%

(ii) For each Licensed Product sold by Cerulean or an Affiliate of Cerulean, Cerulean shall pay to Calando (subject to Sections 5.2(b), 5.5(b), 5.5(c) and 5.5(d)) the following tiered earned royalties on Annual Net Sales of each Licensed Product whose manufacture, use or sale, at the time of sale and in the country of sale, is not, and would not be if such manufacture or use occurred in the country of sale, Covered by a Valid Claim of a Collective Patent Right:

Annual Net Sales Tiers:	**Royalty Rate:**
The portion of Annual Net Sales which is less than or equal to US $**[***]**	**[***]**%
The portion of Annual Net Sales which is greater than US $**[***]**	**[***]**%

(b) Royalty Term.

(i) Royalties on the Licensed Product whose manufacture, use or sale, at the time of sale and in the country of sale, is, or would be if such manufacture or use occurred in the country of sale, Covered by a Valid Claim of a Collective Patent Right shall be payable until the expiration of such Valid Claim.

(ii) Royalties on the Licensed Product whose manufacture, use or sale, at the time of sale and in the country of sale, is not, and would not be if such manufacture or use occurred in the country of sale, Covered by a Valid Claim of a Collective Patent Right shall be payable if such sale occurs within the first ten (10) years after the First Commercial Sale of the Licensed Product in such country; provided, however, that, at the time of such manufacture, use or sale, a Valid Claim of a Collective Patent Right exists in any country of the world.

(iii) Once the royalty obligations hereunder end with respect to the Licensed Product in a country of sale, Cerulean shall have a fully paid-up, non-exclusive, perpetual license, under the Licensed Patent Rights, and under all intellectual property rights in the Licensed Know-How, to research, develop, make, have made, use, market, offer to sell, distribute, sell and import the Licensed Product in any country in order to sell the Licensed Product in the Field in such country and to use, copy, modify and distribute the Licensed Know-How for such purposes.

(c) The obligation to pay royalties shall be imposed only once, at the point of the first sale, with respect to a particular unit of Licensed Product.

(d) Cerulean shall be entitled to deduct from the royalty payments it makes pursuant to Section 5.5(a) with respect to the Licensed Product **[***]** percent (**[***]**%) of Required Third Party Payments with respect to the Licensed Product; provided, that, in no event shall a deduction under this Section 5.5(d) reduce any royalty payment payable by Cerulean pursuant to Section 5.5(a) by more than **[***]** percent (**[***]**%). Cerulean shall be entitled to carry forward any unused amounts against future royalty payments payable by Cerulean hereunder with respect to the Licensed Product, until such unused amounts are fully offset.

(e) Calando shall remain solely responsible for any payments owed under the Caltech Agreement.

5.6 Reports and Payment. Commencing with the calendar quarter in which the First Commercial Sale of a Licensed Product occurs in any country in the world and continuing during the Term, Cerulean shall deliver to Calando, within sixty (60) days after the end of each calendar quarter (the "Royalty Payment Date"), (a) a written report showing Cerulean's computation of Sublicense Income due under this Agreement for such calendar quarter, (b) a written report showing Cerulean's computation of royalties due under this Agreement for such calendar quarter on a country-by-country basis and (c) payment of the Sublicense Income and royalties shown to be due under this Agreement for such calendar quarter via wire transfer of immediately available funds to an account designated by Calando. With respect to sales of Licensed Products invoiced in United States Dollars, the sales and royalties payable shall be expressed in United States Dollars. With respect to sales of Licensed Products invoiced in a currency other than United States Dollars, the sales and royalties payable shall be expressed in their United States Dollar equivalent calculated using the applicable conversion rates for buying United States Dollars published by The Wall Street Journal on the last business day of the calendar quarter to which the royalty report relates. All Sublicense Income and royalty payments shall be made in United States Dollars.

5.7 Right to Setoff. If Calando and/or Arrowhead fails to indemnify a Cerulean Indemnittee as contractually provided for in Section 10.2, then Cerulean may, at its option and upon written notice to Calando, setoff such amount from any amounts owed by Cerulean to Calando pursuant to Sections 5.2, 5.3, 5.4 or 5.5 of this Agreement.

5.8 Tax Withholding. Cerulean shall use reasonable and legal efforts to reduce tax withholding payments to be made to Calando. Notwithstanding the foregoing, if Cerulean concludes that tax withholdings under the laws of any country are required with respect to payments to Calando, Cerulean shall withhold the required amount and pay it to the appropriate governmental authority. In any such case, Cerulean shall promptly provide Calando with original receipts or other evidence reasonably desirable and sufficient to allow Calando to document such tax withholdings for purposes of claiming foreign tax credits and similar benefits.

5.9 Records. Cerulean shall keep, and shall require its Affiliates and Sublicensees to keep, true and accurate books of accounts and other records containing all information and data which may be necessary to ascertain and verify the royalties and other amounts payable by Cerulean under this Agreement. During the Term and for a period of three (3) years thereafter, Calando shall have the right from time to time (not to exceed once during each calendar year) (a) to have an independent certified public accountant inspect such books and records of Cerulean and its Affiliates and (b) to require that Cerulean have an independent certified public accountant inspect such books and records of the Sublicensees. Any such independent certified public accountant shall be reasonably acceptable to Cerulean, shall execute a standard form of confidentiality agreement with Cerulean, shall be permitted to share with Cerulean its findings, and shall be permitted to share with Calando solely its findings with respect to the accuracy of the amounts reported as payable under this Agreement. If such audit determines that the royalties paid to Calando pursuant to Section 5.5(a) for any such audited period were understated, then Cerulean shall, within ten (10) days of receipt of the audit report, pay to Calando the entirety of such understated amount plus interest accruing from the Royalty Payment Date until the date that

such understated amount is paid at an interest rate equal to the lesser of (i) ten percent (10%) per annum or (ii) the highest interest rate allowable by law. If such audit determines that the royalties paid to Calando pursuant to Section 5.5 for any such audited period were understated by an amount equal to or greater than five percent (5%) of what was owed, then Cerulean shall) reimburse Calando for any reasonable out-of-pocket costs of such audit paid by Calando.

SECTION 6. DILIGENCE

6.1 Diligence. Cerulean, through itself, its Affiliates or sublicensees, shall use **[***]**. In addition, if, at any time prior to the **[***]**, then Cerulean (or its successor, as applicable), together with its Affiliates and sublicensees, shall **[***]**, during each Diligence Period; provided, however, that, in lieu of such **[***]**. Such amount shall be pro-rated for any Diligence Period which is less than twelve months in length. "Diligence Period" means the **[***]**.

6.2 Performance Reports. Cerulean agrees to provide annual performance reports to Calando within thirty (30) calendar days of a written request by Calando which shall be no more frequent than once every twelve (12) months. These performance reports shall describe all research and development efforts for the Licensed Product since the last performance report. After the date of First Commercial Sale of the Licensed Product in any of the European Union, United States or Japan, such annual reports shall no longer be required.

6.3 Conformity with Caltech Agreement. If, and to the extent, that Caltech, pursuant to Section 5.2 of the Caltech Agreement, requires Calando to report on the progress of introducing commercial Licensed Products in the United States, Calando shall promptly (but in any event within five (5) business days) report such requirement to Cerulean and Cerulean shall promptly (within thirty (30) days thereafter) provide a written report thereof to Calando and Calando shall promptly (but in any event within five (5) business days) provide such report to Caltech.

6.4 Compliance with Laws. Each Party shall, and shall ensure that its Affiliates and sublicensees shall, comply with all applicable laws in exercising their rights and fulfilling their obligations under this Agreement.

SECTION 7. INTELLECTUAL PROPERTY

7.1 Ownership. As between the Parties, (a) all Know-How developed, conceived or reduced to practice after the Effective Date solely by employees and consultants of Cerulean or its Affiliates, and all intellectual property rights in the foregoing, shall be owned solely by Cerulean, and (b) all Know-How developed, conceived or reduced to practice after the Effective Date solely by employees and consultants of Calando or its Affiliates, and all intellectual property rights in the foregoing, shall be owned solely by Calando. While the Parties do not anticipate that any Know-How will be jointly developed, if any Know-How is developed, conceived or reduced to practice after the Effective Date jointly by employees and consultants of Cerulean or its Affiliates, on the one hand, and Calando or its Affiliates, on the other hand, such Know-How and all intellectual property rights therein (such Know-How and intellectual property rights, collectively, "Joint IP"), shall be owned jointly by Cerulean and Calando, on the basis of an undivided interest. Subject to the licenses granted to Cerulean pursuant to Section 3.1 and pursuant to the Platform Agreement, each Party shall have the right to fully exploit the Joint IP, and to sublicense such Party's rights under the Joint IP, without a duty to account to the other Party. If any patentable Joint IP is conceived or reduced to practice, the Parties shall negotiate in good faith reasonable rights and responsibilities of the Parties to prosecute and enforce such Joint IP. Inventorship, for the purposes of this Section 7.1, shall be determined by the Parties in good faith in accordance with United States patent laws.

7.2 Patent Prosecution.

(a) Assigned Patent Rights. Cerulean shall have the sole right, at its own expense and in its own name, to prepare, file, prosecute and maintain the Assigned Patent Rights. If Cerulean determines to discontinue the prosecution or maintenance of any patent application or patent within such Assigned Patent Rights, Cerulean shall promptly notify Calando, sufficiently in advance of any deadlines to ensure that no rights with respect thereto are lost, and thereupon, Calando shall have the right, at its own expense, to prosecute and maintain any such Patent Right.

(b) RNAi Patent Rights. Calando shall have the sole right, at its own expense and in its own name, to prepare, file, prosecute and maintain the RNAi Patent Rights.

(c) Caltech Patent Rights. The Parties agree and acknowledge that, with respect to the Caltech Joint Patent Rights and the Caltech Sole Patent Rights, as set forth in the Caltech Agreement, Caltech has the right to prosecute such Patent Rights, Calando has the right to comment on such prosecution and Calando pays the patent costs thereof, but that:

(i) Calando shall use reasonable efforts to cause Caltech to promptly provide Calando with copies of all material correspondence received from any patent counsel or patent authority pertaining to such Patent Rights;

(ii) Calando shall promptly provide Cerulean with copies of all correspondence received by Calando from Caltech from any patent counsel or patent authority pertaining to such Patent Rights;

(iii) Calando shall provide Cerulean, sufficiently in advance of any deadline for Cerulean to comment, with copies of all patent applications and other submissions and correspondence with any patent counsel or patent authority pertaining to such Patent Rights, and shall use reasonable efforts to ensure that Caltech gives due consideration to Cerulean's comments; and

(iv) in the event of the bankruptcy or other insolvency of Calando or a termination, for any reason, of the Caltech Agreement, as between the Parties, the provisions of the Caltech Side Letter shall supersede any conflicting provisions of this Section 7.2(c) and the Caltech Agreement.

(d) Other Licensed Patent Rights. Calando shall have the initial right, at its own expense and in its own name, to prepare, file, prosecute and maintain any Licensed Patent Rights other than the Caltech Joint Patent Rights, Caltech Sole Patent Rights and RNAi Patent Rights. If Calando determines not to prepare or file any patent application covering any Licensed Know-How or determines to discontinue the prosecution or maintenance of any patent application or patent within such Licensed Patent Rights, Calando shall promptly notify Cerulean, sufficiently in advance of any deadlines to ensure that no rights with respect thereto are lost, and thereupon, Cerulean shall have the right, at its own expense, to prepare, file, prosecute and maintain any such Patent Right. With respect to the preparation, filing, prosecution and maintenance of such Licensed Patent Rights:

(i) the Party not preparing, filing, prosecuting or maintaining such patent or patent application (the "Non-Prosecuting Party") shall, at the reasonable request of the other Party (the "Prosecuting Party"), assist and cooperate in the filing, prosecution and maintenance of such Patent Rights;

(ii) the Prosecuting Party shall provide the Non-Prosecuting Party, sufficiently in advance of any deadline for the Non-Prosecuting Party to comment, with copies of all patent applications and other submissions and correspondence with any patent counsel or patent authority pertaining to such Patent Rights;

(iii) the Prosecuting Party shall give due consideration to the Non-Prosecuting Party's comments, but the Prosecuting Party shall have the final say in determining whether or not to incorporate such comments;

(iv) each Party shall promptly provide the other with copies of all correspondence received from any patent counsel or patent authority pertaining to such Patent Rights; and

(v) if Cerulean is preparing, filing, prosecuting or maintaining Licensed Patent Rights, Cerulean may fully credit any out-of-pocket expenses incurred by Cerulean in connection therewith against any other payments due by Cerulean hereunder.

7.3 Enforcement.

(a) Notice. Each Party shall promptly (but within no more than five (5) days) report in writing to the other Party during the Term any suspected infringement of the Collective Patent Rights (including any "patent certification" filed in the United States under 21 U.S.C. §355(b)(2) or 21 U.S.C. §355(j)(2) or similar provisions in other jurisdictions), any declaratory judgment, opposition, or similar action alleging the invalidity, unenforceability or non-infringement of the Collective Patent Rights, or any suspected unauthorized use or misappropriation of any Licensed Know-How or of the other Party's Confidential Information, of which it becomes aware, and shall provide the other Party with all available evidence supporting such suspected infringement, action or unauthorized use or misappropriation.

(b) Enforcement of Assigned Patent Rights. Cerulean shall have the sole right to initiate an appropriate suit anywhere in the world against any Third Party who at any time is suspected of infringing all or any portion of the Assigned Patent Rights.

(c) Enforcement of RNAi Patent Rights. Calando shall have the sole right to initiate an appropriate suit anywhere in the world against any Third Party who at any time is suspected of infringing all or any portion of the RNAi Patent Rights.

(d) Enforcement of Licensed Patent Rights other than RNAi Patent Rights.

(i) Cerulean shall have the first right to initiate an appropriate suit anywhere in the world against any Third Party who at any time is suspected of infringing all or any portion of the Licensed Patent Rights other than the RNAi Patent Rights, or using without proper authorization all or any portion of the Licensed Know-How, by researching, developing, making, having made, using, marketing, offering to sell, distributing, selling or importing any product that falls within the scope of the definition of "Licensed Product". Calando shall join as a party to any such suit brought by Cerulean, if requested by Cerulean, but shall be under no

obligation to participate except to the extent that such participation is required as the result of being a named party to the suit. Upon Cerulean's request, Calando shall provide reasonable assistance to Cerulean in connection therewith at no charge to Cerulean except for reimbursement of Calando's reasonable out-of-pocket expenses (including reasonable attorneys' fees) incurred in rendering such assistance. Any recoveries resulting from such action (whether in the form of damages, royalties, settlement payments or otherwise) shall first be applied to reimburse Cerulean for all out-of-pocket expenses incurred in connection with such proceeding (and any out-of-pocket expenses of Calando paid by Cerulean) and (A) to the extent that the remaining recovery represents lost profits, such remaining recovery shall be retained by Cerulean, with Calando entitled to receive an amount equal to the royalties that would have been due Calando on sales of the relevant Licensed Product lost by Cerulean as a result of the infringement and (B) to the extent that the remaining recovery represents punitive or other damages, Cerulean shall be entitled to **[***]** of such remaining recovery and Calando shall be entitled to **[***]** of such remaining recovery.

(ii) If, within one hundred eighty (180) days after notification of an infringement of the Licensed Patent Rights with respect to which Cerulean would have the first right to bring suit as described in Section 7.3(d)(i), Cerulean has not been successful in persuading the alleged infringer to desist and is not diligently pursuing an infringement action or suit, or has notified Calando of its intent not to bring action or suit against the alleged infringer, then Caltech or Calando may institute an action or suit against such Third Party, in accordance with their rights of priority under Sections 6.1 and 6.2 of the Caltech Agreement, subject to the following if Calando institutes such action or suit:

(A) Prior to taking any action, Calando shall confer with Cerulean and give due consideration to Cerulean's reasons for not pursuing such alleged infringer.

(B) The action or suit shall be brought in the name of Caltech and/or Calando and Calando shall bear the entire cost of such action or suit. Calando shall promptly provide Cerulean with copies of all litigation pleadings and other documents submitted to the court.

(C) With respect to any consideration received by Calando in connection with such action or suit, Calando shall first be entitled to deduct its litigation expenses and legal fees (including any incurred as part of an indemnification of Cerulean). All remaining recovery shall be **[***]**.

(D) If it shall be necessary for Calando to join Cerulean as a party to an action or suit because Cerulean constitutes a legally indispensable party, Calando shall have the right to so join Cerulean; provided, that Calando indemnifies Cerulean for all outside costs and expenses (including reasonable attorneys fees) thereby incurred by Cerulean.

(iii) Calando shall have the sole right to initiate an appropriate suit anywhere in the world against any Third Party who at any time is suspected of infringing all or any portion of the Licensed Patent Rights other than the RNAi Patent Rights, or using without proper authorization all or any portion of the Licensed Know-How, by researching, developing, making, having made, using, marketing, offering to sell, distributing, selling or importing any product that falls within the scope of the definition of "Retained Product" (as defined in the Platform Agreement).

(iv) The Party enforcing such Licensed Patent Rights or Licensed Know-How pursuant to Section 7.3(d)(i), (ii) or (iii) shall have the sole and exclusive right to select counsel for any such suit referred and shall, except as provided herein, pay all expenses of the suit, including attorneys' fees and court costs. Neither Party shall settle any suit described in this Section 7.3 involving rights of the other Party without obtaining the prior written consent of such other Party, which consent shall not be unreasonably withheld.

7.4 Power of Attorney. Calando hereby constitutes and appoints the President of Cerulean with full power of substitution, the true and lawful attorney-in-fact and agent of Calando, to execute, acknowledge, verify, swear to, deliver, record and file, in Calando's or its assignee's name, place and stead, all in accordance with the terms of this Agreement, all instruments, documents and certificates which may from time to time be required by the laws of the governmental authority to prosecute, maintain and enforce the Licensed Patent Rights other than the RNAi Patent Rights, and to prepare and file any patent applications covering Licensed Know-How, in each case to the extent Calando or its assignee has such right pursuant to this Section 7. The power of attorney granted herein will be deemed to be coupled with an interest, will survive and not be affected by the dissolution, bankruptcy or legal disability of Calando and will extend to its successors and assigns. If required, Calando shall execute and deliver to Cerulean within five (5) days after the receipt of a request therefor, such further designations, powers of attorney or other instruments as Cerulean will reasonably deem necessary for the purposes described in this Section 7.4.

7.5 Claimed Infringement. If a Third Party at any time provides written notice of a claim, or brings an action, suit or proceeding, against either Party or any of its Affiliates or sublicensees, claiming infringement of such Third Party's Patent Rights or unauthorized use or misappropriation of such Third Party's Know-How, arising out of the research, development, making, having made, use, marketing, offering to sell, distribution, sale or importation of the Licensed Product, such Party shall promptly notify the other Party of the claim or the commencement of such action, suit or proceeding, enclosing a copy of the claim and all papers served and such Party shall have the sole right and responsibility to take any action it deems appropriate with respect such claim, action, suit or proceeding.

SECTION 8. CONFIDENTIAL INFORMATION

8.1 Treatment of Confidential Information. Each Receiving Party shall maintain in confidence the Confidential Information of the Disclosing Party and shall not disclose, divulge or otherwise communicate such Confidential Information to others, or use it for any purpose, except to exercise its rights or fulfill its obligations under this Agreement. Each Receiving Party shall exercise every reasonable precaution to prevent and restrain the unauthorized disclosure of such Confidential Information by any of its directors, officers, employees, consultants, subcontractors, sublicensees or agents.

8.2 Release from Restrictions. The provisions of Section 8.1 shall not apply to any Confidential Information of the Disclosing Party which:

(a) was known or used by the Receiving Party or any of its Affiliates prior to its date of disclosure to the Receiving Party, as demonstrated by competent evidence of the Receiving Party;

(b) either before or after the date of the disclosure to the Receiving Party is lawfully disclosed to the Receiving Party or any of its Affiliates by a Third Party rightfully in possession of, and with the right to disclose, such Confidential Information;

(c) either before or after the date of the disclosure to the Receiving Party becomes published or generally known to the public through no fault or omission on the part of the Receiving Party or its Affiliates;

(d) is required to be disclosed by the Receiving Party to comply with applicable laws or regulations, to defend or prosecute litigation or arbitration, to file for patent protection as permitted hereunder or to file for Regulatory Approval as permitted hereunder; provided, however, that (i) with respect to a disclosure to comply with laws or regulations or to defend or prosecute litigation or arbitration, then, to the extent permitted by law, the Receiving Party shall provide the Disclosing Party with prompt notice of any such requirement, and (ii) with respect to any disclosure under this clause (d), then, where available, the Receiving Party shall take reasonable and lawful actions to avoid and/or minimize the degree of such disclosure; or

(e) is independently developed by the Receiving Party or any of its Affiliates without reference to the Confidential Information of the Disclosing Party;

provided, however, that Calando may not rely on the provisions of Section 8.2(a) or (b) with respect to the Assigned IP.

8.3 Permitted Disclosure. The Receiving Party may provide the Disclosing Party's Confidential Information to the directors, employees, consultants and advisors of the Receiving Party and its Affiliates, and to its then-current and potential licensees who have a need to know such Confidential Information for purposes of the Receiving Party granting licenses or sublicenses under Collective Patent Rights or Licensed Know-How as permitted herein; provided, that such persons shall (a) execute or have executed an agreement in reasonable form whereby they agree to be bound by an obligation, or (b) be bound by ethical or fiduciary obligations, in each case to maintain the confidentiality of the Disclosing Party's Confidential Information at least to the same extent as if they were parties hereto.

8.4 Publicity. No Party shall have the right to make any public announcements with respect to this Agreement, nor publicly disclose the terms of this Agreement, without the prior written consent of the other Party, except as follows:

(a) On the first business day following the execution of this Agreement, each Party shall issue its press release attached hereto as Exhibit J.

(b) Each Party may disclose the terms of this Agreement to the extent such disclosure is required by law (including by rules or regulations of any securities exchange or NASDAQ) or to defend or prosecute litigation or arbitration; provided, that, prior to such disclosure, to the extent permitted by law or such rules or regulations, the disclosing Party promptly notifies the other Party of such requirement and gives such other Party an opportunity to comment on the disclosure to be made, the disclosing Party furnishes only those terms of this Agreement that the disclosing Party is legally required to furnish and the disclosing Party requests, and use reasonable efforts to obtain, confidential treatment of financial and other commercially sensitive terms.

(c) Each Party may make subsequent disclosures of information which has been previously publicly disclosed in accordance with this Agreement.

(d) Calando may disclose this Agreement to (i) Calando's then-current and potential Third Party licensors or licensees of the Collective Patent Rights, and (ii) Calando's then-current and potential investors and acquirers; provided, that such persons are bound to maintain the confidentiality of this Agreement to the same extent as if they were parties hereto and Calando shall not disclose the financial and other commercially sensitive terms of this Agreement to any licensee outside the Field.

(e) Cerulean may disclose this Agreement to (i) Cerulean's then-current and potential licensors or licensees of the Collective Patent Rights, and (ii) Cerulean's then-current and potential investors and acquirers; provided, that such persons are bound to maintain the confidentiality of this Agreement to the same extent as if they were parties hereto.

(f) From and after the Effective Date, Cerulean shall have the right to make and control all disclosures regarding Licensed Products.

8.5 Enforcement. The provisions of Section 8 of this Agreement are necessary for the protection of the business and goodwill of the Parties and are considered by the Parties to be reasonable for such purpose. The Receiving Party agrees that any breach of Section 8 of this Agreement may cause the Disclosing Party substantial and irreparable injury and, therefore, in the event of any such breach, in addition to other remedies which may be available, the Disclosing Party may have the right to specific performance and other injunctive and equitable relief.

8.6 Caltech Name. Except as may be required by law, Cerulean shall not, without having first obtained written approval from Caltech, use the name of Caltech, or California Institute of Technology, in any advertising or publicity material, or make any form of representation or statement which would constitute an express or implied endorsement by Caltech of any Licensed Product.

8.7 Laboratory Notebooks. The laboratory notebooks of Calando shall be made available to Cerulean upon the following terms and conditions:

(a) All original laboratory notebooks and one complete unredacted electronic copy of the original laboratory notebooks shall be archived **[***]** (the "Escrow Agent") pursuant to the terms and conditions of the Three-Party Escrow Agreement (also known as the Technology Escrow Agreement) attached hereto as Exhibit K (the "Escrow Agreement"). The master inventory list included as Exhibit D to the Escrow Agreement references each such laboratory notebook, including its assigned number and the inventor to whom the laboratory notebook was assigned, and whether such laboratory notebook is a Full Access Notebook, Partial Access Notebook or Restricted Access Notebook. Such deposit with the Escrow Agent shall be made by Calando on or prior to the Effective Date and shall be released to Cerulean in accordance with the terms of the Escrow Agreement.

(b) In addition, Cerulean shall be given, and granted full access to, one complete unredacted electronic copy of the **[***]** laboratory notebooks of Calando that: (i) do not primarily relate to nucleic acids; (ii) contain disclosure related to the Assigned IP or Licensed IP; and (iii) do not contain proprietary information of Third Parties (such notebooks, the "Full Access Notebooks").

(c) Cerulean shall be given, and granted full access to, one redacted electronic copy of the **[***]** laboratory notebooks of Calando that: (i) do not primarily relate to nucleic acids; (ii) contain disclosure related to the Assigned IP or Licensed IP; and (iii) contain proprietary information of Third Parties that is not disclosure related to the Assigned IP or Licensed IP (such notebooks, the "Partial Access Notebooks"). Calando shall delete from such copy of such laboratory notebooks the proprietary information of Third Parties that is not disclosure related to the Assigned IP or Licensed IP.

(d) Cerulean shall not be given or granted full access to any of the **[***]** laboratory notebooks that are primarily related to nucleic acids and which may or may not contain proprietary information of Third Parties (such notebooks, the "Restricted Access Notebooks").

(e) Notwithstanding the foregoing clauses (c) and (d), one complete unredacted electronic copy of the originals of each of the Full Access Notebooks, Partial Access Notebooks and Restricted Access Notebooks shall be delivered to Cerulean on the Effective Date. Such copies of the Partial Access Notebooks and Restricted Access Notebooks shall be maintained in a secure location and access to such copies shall be limited at all times to the most senior scientific officer of Cerulean, the most senior internal legal counsel of Cerulean and outside counsel of Cerulean. Cerulean, acting through such representatives, shall have the right to refer to and use such copies of the Partial Access Notebooks and Restricted Access Notebooks solely: (i) for regulatory or governmental purposes pertaining to the Cyclodextrin System or any Licensed Product; (ii) in connection with any litigation pertaining to the Cyclodextrin System or any Licensed Product; (iii) for the maintenance, prosecution or defense of the Assigned IP or Licensed IP; (iv) to resolve scientific or technical questions regarding the redacted laboratory notebooks; and (v) to make corrections in the event that any disclosures related to the Assigned IP or Licensed IP were improperly or incorrectly redacted.

(f) Cerulean's use of the Full Access Notebooks, whether the originals released by the Escrow Agent or the copies provided hereunder, shall be unrestricted.

(g) In no event shall Cerulean have any right, nor is any right granted by Calando to Cerulean, to exploit any proprietary information of Third Parties that is not Assigned IP or Licensed IP and is contained in any of the laboratory notebooks of Calando.

(h) Title to and ownership of the Full Access Notebooks, Partial Access Notebooks and Restricted Access Notebooks shall remain with Calando.

SECTION 9. WARRANTIES

9.1 Mutual Warranties. Each Party warrants that:

(a) it is a corporation duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation, and it has full power and authority and the legal right to own and operate its property and assets and to carry on its business as it is now being conducted and as it is contemplated to be conducted by this Agreement;

(b) it has the full right, power and authority to enter into this Agreement and to grant the rights and licenses granted by it under this Agreement;

(c) as of the Effective Date, there is no existing or, to its Knowledge, threatened action, suit, claim, litigation, investigation, proceeding or controversy pending before any court, administrative agency or other governmental authority with respect to (i) the subject matter of this Agreement, or (ii) its right to enter into and perform its obligations under this Agreement;

(d) as of the Effective Date, it has taken all necessary corporate and stockholder action on its part to authorize the execution and delivery of this Agreement and the performance of its obligations under this Agreement;

(e) this Agreement has been duly executed and delivered on behalf of it, and constitutes a legal, valid, binding obligation, enforceable against it in accordance with the terms hereof, subject to the general principles of equity and to bankruptcy, insolvency, moratorium and other similar laws affecting the enforcement of creditors' rights generally;

(f) as of the Effective Date, all necessary consents, approvals and authorizations of all governmental authorities and other persons required to be obtained by it in connection with the execution and delivery of this Agreement and the performance of its obligations under this Agreement have been obtained;

(g) the execution and delivery of this Agreement and the performance of its obligations hereunder do not (i) conflict with, or constitute a default under, any of its contractual obligations, (ii) conflict with or violate any provision of its Certificate of Incorporation, by-laws or other organizational documents; or (iii) violate any judgment, order, writ, injunction, decree, statute, rule or regulation of any court, administrative agency or other governmental authority applicable to it or any of its properties or assets; and

(h) it has no liability or obligation to pay any fees or commissions to any broker, finder or agent with respect to the transactions contemplated by this Agreement.

9.2 Additional Calando Warranties. Calando warrants to Cerulean that, as of the Effective Date:

(a) Good Title. Immediately prior to the Effective Date and the assignments pursuant to Section 2, (i) Calando was the sole, true and lawful owner of, and had good title to, the Inventory, free and clear of all Liens of any kind; (ii) Calando is not, and has not been, bound by any policies or agreements under which the Inventory has been or will be assigned to anyone other than Cerulean; (iii) Calando has the right to sell and transfer to Cerulean good, clear record and title to the Inventory, free and clear of all Liens of any kind; and (iv) upon execution and delivery to Cerulean of this Agreement and the instruments of conveyance referred to in Section 2.2(e), Cerulean will become the sole, true and lawful owner of, and receive good and marketable title to, the Inventory, free and clear of all Liens.

(b) Inventory. All Inventory was manufactured in accordance with cGMP and the specifications set therefor by Calando and conform to such specifications. Except for retain samples of IT-101 held at, and the drug substance and drug product that are subject to the stability studies being conducted by, **[***]**, no drug substance or drug product form of IT-101 is stored or exists anywhere other than at **[***]**.

(c) Government Rights. Calando, its Affiliates and Caltech have neither sought, applied for nor received any support, funding, resources or assistance from any governmental authority in connection with the development, conception or reduction to practice of the Licensed IP or the research, development, manufacturing, having made, use, marketing, offering to sell, distribution, sale or importation of the Licensed Product or any facilities or equipment used in connection therewith.

(d) Completeness. Exhibits A, B, C and D collectively list all Patent Rights owned, solely or jointly, by Calando or its Affiliates and/or Controlled by Calando that relate to the Cyclodextrin System or the Licensed Product, in each case immediately prior to the assignment of the Assigned Patent Rights pursuant to Section 2.2 of the Platform Agreement. Such exhibits accurately list, for each such Patent Right: the applicable serial number, filing date, title, jurisdiction in which filing was made, issue date and owners(s).

(e) Patent Validity. To Calando's Knowledge, (i) all issued patents included in the Collective Patent Rights are valid and enforceable; (ii) no claim has been made against Calando, its Affiliates or the Third Party co-owner thereof alleging that any issued patent included in the Collective Patent Rights is invalid or unenforceable; (iii) all assignments of such Patent Rights have been properly executed and recorded; (iv) all issuance, renewal, maintenance and other payments that are or have become due with respect thereto have been timely paid by or on behalf of Calando or the Third Party co-owner thereof; (v) there are no inventorship challenges, opposition or nullity proceedings or interferences declared, commenced or provoked with respect to any Collective Patent Rights; and (vi) with respect to any Licensed Patent Rights owned, in whole or in part, by Calando, Calando and its Affiliates have, and any co-owner of such Patent Rights has, complied with the duty of candor and disclosure to the United States Patent and Trademark Office and any relevant foreign patent office and have made no material misrepresentation in any patent applications included in or underlying such Patent Rights. Calando has no Knowledge of any information that would preclude it from owning the Assigned IP (immediately prior to the assignment pursuant to Section 2.2 of the Platform Agreement) or the Licensed Patent Rights described in clause (vi) hereof.

(f) Non-Infringement of Third Party Rights. There are no claims pending or, to the actual knowledge of the Calando Representatives, threatened by any person against Calando or any of its Affiliates alleging that Calando's ownership, sale, licensing, possession or use of, or disclosure, transfer, license or assignment (as applicable) to Cerulean of, the Inventory, or Licensed IP infringes upon or constitutes an unauthorized use of the intellectual property rights of any person, nor is there any known basis for any such claim. Except as previously disclosed to the General Counsel of Cerulean, to the actual knowledge of the Calando Representatives, the research, development, making, having made, use, offering for sale, distribution, sale or importation of IT-101 by or on behalf of Cerulean, its Affiliates or sublicensees after the Effective Date, will not infringe or misappropriate any intellectual property right of any Third Party. Calando and its Affiliates have not received any complaint, claim or notice, nor any threat thereof (including any notification that a license under any Patent Right or other intellectual property right is or may be required), alleging any such infringement or misappropriation.

(g) Non-Infringement by Third Party. To Calando's Knowledge, no person (including any current or former employee or consultant of Calando) is infringing, violating or misappropriating any of the Licensed IP in the Field.

(h) Corporate Documents. Calando has furnished to Cerulean true, complete and accurate copies of (i) its current Certificate of Incorporation and by-laws; (ii) all material documentation pertaining to the formation of the previous corporate entity known as Calando Pharmaceuticals, Inc., the subsequent merger of such corporate entity into Insert Therapeutics, Inc. and the subsequent change in the name of Insert Therapeutics, Inc. to Calando Pharmaceuticals, Inc.; (iii) its stock ledger going back to the inception of Calando or its

predecessor and a list of all current stockholders of Calando; (iv) all documentation for any repurchased or cancelled shares of stock of Calando; (v) all option plans, option agreements, warrants and other rights to purchase equity of Calando (including any exercises) and the ledger(s) listing current holders thereof; (vi) all promissory notes of Calando and a ledger listing all current holders thereof; (vii) all agreements relating to the sale of equity of Calando; (viii) all board of director and stockholder minute books dating to the inception of Calando or its predecessor; and (ix) any other Relevant Agreement (A) under which a Lien has been or could be imposed on any of the Assigned IP, Licensed IP or Inventory and (B) any agreement that restricts or could reasonably be expected to have the effect of restricting the rights granted to Cerulean hereunder.

(i) Approvals. This Agreement and the transactions contemplated hereby have been approved by Calando's board of directors and stockholders in accordance with the corporate laws of the state of Delaware, including Section 144 of the Delaware General Corporation Law.

(j) Solvency. Neither Calando nor any of its Affiliates has ever filed in any court or agency pursuant to any statute or regulation of any state or country, a petition in bankruptcy or insolvency or for reorganization or for an arrangement or for the appointment of a receiver or trustee of it or its assets. Neither Calando nor any of its Affiliates has been served with an involuntary petition against it, filed in any insolvency proceeding. Neither the execution and delivery of this Agreement nor the consummation of the transactions contemplated hereby will result in the imposition of any Lien upon any assets of Calando.

(k) Clinical Trials. Exhibit L lists each person with which Calando or any of its Affiliates has executed any agreement, or to which any units of Licensed Product have been shipped on or before the Effective Date, for purposes of conducting any Clinical Trial (each, a "Clinical Trial Site"). To Calando's Knowledge, each patient involved in a Clinical Trial of the Licensed Product has executed an informed consent (in substantially the form provided to Cerulean by Calando) and a HIPAA authorization. To Calando's Knowledge, all Clinical Trials conducted on the Licensed Product have been conducted in compliance in all material respects with the relevant protocol and any and all applicable laws, regulations and guidelines, and any other relevant professional standard relating to the conduct of the Clinical Trial and the performance of clinical investigations, including such laws, rules and regulations concerning or promulgated by the FDA. The IT-101 IND is the only IND covering the Licensed Product. Calando has provided Cerulean with a true and complete copy of all Regulatory Documentation generated on or before the Effective Date with respect to IT-101.

(l) Debarment. Neither Calando, any Affiliate of Calando, or to Calando's Knowledge, any Clinical Trial Site, investigator or any other person who provided or is providing services in any capacity involved in any Clinical Trial of the Licensed Product (each, a "Clinical Trial Investigator"): (i) is or was subject to any pending or threatened, investigation by (A) the FDA pursuant to its "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities" policy set forth in 56 Fed. Reg. 46191 (September 10, 1991) or any amendments thereto, (B) the Department of Health and Human Services Office of Inspector General or Department of Justice pursuant to the Federal Anti-Kickback Statute (42 U.S.C. §1320a-7(b)) or the Civil False Claims Act (31 U.S.C. §§3729 et seq.), or (C) any equivalent statute of any other country; (ii) committed any act, made any statement or failed to make any statement that would reasonably be expected to provide a basis for action under any of the statutes, regulations, and policy referred to in clause (i); or (iii) has been convicted of any crime or engaged in any conduct that would reasonably be expected to result in (A) debarment under 21 U.S.C. §335a or any similar state or foreign law or

(B) exclusion under 42 U.S.C. §1320a-7 or any similar state or foreign law. No data generated by any Clinical Trial Investigator in connection with any Clinical Trial of any Licensed Product is the subject of any pending regulatory action by the FDA or any other Regulatory Authority relating to the truthfulness or scientific adequacy of such data.

9.3 Disclaimer. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS SECTION 9, NEITHER PARTY MAKES ANY REPRESENTATIONS OR EXTENDS ANY WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, QUALITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, OR VALIDITY OF PATENT CLAIMS.

SECTION 10. INDEMNIFICATION

10.1 Indemnification by Cerulean. Cerulean agrees to defend the Calando Indemnitees, at Cerulean's cost and expense, and will indemnify and hold harmless the Calando Indemnitees from and against any and all losses, costs, damages, fees or expenses ("Losses") relating to or in connection with a Third Party claim arising out of (a) any actual or alleged death, personal bodily injury or damage to real or tangible personal property claimed to result, directly or indirectly, from the possession, use or consumption of, or treatment with, any Licensed Product, developed, manufactured, used or sold by or on behalf of Cerulean, its Affiliates or sublicensees after the Effective Date; (b) any breach by Cerulean of its representations, warranties or covenants made under this Agreement; or (c) any negligent act or omission or willful misconduct of Cerulean, its Affiliates or sublicensees or any of their employees, contractors or agents, in performing Cerulean's obligations or exercising Cerulean's rights under this Agreement; provided, however, that the foregoing indemnity shall not apply to the extent that any such Losses (i) are attributable to the gross negligence or willful misconduct of the Calando Indemnitees, or (ii) are otherwise subject to an obligation by Calando to indemnify the Cerulean Indemnitees under Section 10.2. In the event of any such claim against any Calando Indemnitee, Calando shall promptly notify Cerulean in writing of the claim and Cerulean shall manage and control, at its sole expense, the defense of the claim and its settlement as provided below. The relevant Calando Indemnitees shall cooperate with Cerulean and may, at such Calando Indemnitees' option and expense, be represented in any such action or proceeding. Cerulean shall not be liable for any settlements, litigation costs or expenses incurred by any Calando Indemnitees without Cerulean's written authorization. No Calando Indemnitee shall settle any such claim without the prior written consent of Cerulean. Cerulean shall not, without the prior written consent of Calando, agree to any settlement of any such claim that does not include a complete release of Calando from all liability with respect thereto or that imposes any liability, obligation or restriction on Calando.

10.2 Indemnification by Calando. Calando agrees to defend the Cerulean Indemnitees, at Calando's cost and expense, and will, jointly and severally with Arrowhead, indemnify and hold harmless the Cerulean Indemnitees from and against any and all Losses relating to or in connection with a Third Party claim arising out of (a) any research, development, manufacture, use, sale, offer for sale or importation of the Licensed Product by or on behalf of Calando, its Affiliates or licensees which activity occurred on or before the Effective Date, including claims arising out of the Clinical Trials of IT-101 conducted by or on behalf of Calando, its Affiliates or licensees prior to the Effective Date; (b) any breach by Calando of its representations, warranties or covenants made under this Agreement or any breach by Arrowhead of its representations, warranties or covenants made under the Arrowhead Guarantee; or (c) any negligent act or omission or willful misconduct of Calando or its Affiliates, or any of their employees, contractors or agents, in performing Calando's obligations or exercising Calando's

rights under this Agreement; provided, however, that the foregoing indemnity shall not apply to the extent that any such Losses (i) are attributable to the gross negligence or willful misconduct of the Cerulean Indemnitees, or (ii) are otherwise subject to an obligation by Cerulean to indemnify the Calando Indemnitees under Section 10.1. In the event of any such claim against any Cerulean Indemnitee, Cerulean shall promptly notify Calando in writing of the claim and Calando shall manage and control, at its sole expense, the defense of the claim and its settlement as provided below. The relevant Cerulean Indemnitees shall cooperate with Calando and may, at such Cerulean Indemnitees' option and expense, be represented in any such action or proceeding. Calando shall not be liable for any settlements, litigation costs or expenses incurred by any Cerulean Indemnitees without Calando's written authorization. No Cerulean Indemnitee shall settle any such claim without the prior written consent of Calando. Calando shall not, without the prior written consent of Cerulean, agree to any settlement of any such claim that does not include a complete release of Cerulean from all liability with respect thereto or that imposes any liability, obligation or restriction on Cerulean.

10.3 Allocation. If a claim is based partially on an indemnified claim and partially on a non-indemnified claim or based partially on a claim indemnified by one Party and partially on a claim indemnified by the other Party, any payments in connection with such claims are to be apportioned between the Parties in accordance with the degree of cause attributable to each Party.

SECTION 11. LIMITATION OF LIABILITY

11.1 UNLESS RESULTING FROM A PARTY'S WILLFUL MISCONDUCT OR FROM A PARTY'S BREACH OF SECTION 8, NEITHER PARTY WILL BE LIABLE TO THE OTHER PARTY OR ITS AFFILIATES FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY, PUNITIVE, MULTIPLE OR OTHER INDIRECT DAMAGES, OR FOR LOSS OF PROFITS, LOSS OF DATA, LOSS OF REVENUE, OR LOSS OF USE DAMAGES, ARISING FROM OR RELATING TO THIS AGREEMENT, WHETHER BASED UPON WARRANTY, CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, REGARDLESS OF ANY NOTICE OF SUCH DAMAGES. FOR PURPOSES OF CLARITY, A PARTY'S INDEMNIFICATION OBLIGATIONS UNDER SECTION 10 OF THIS AGREEMENT SHALL NOT BE DEEMED TO BE INDIRECT DAMAGES PRECLUDED BY THE FOREGOING.

SECTION 12. TERM AND REMEDIES

12.1 Term. This Agreement shall commence on the Effective Date and shall continue until the expiration of all royalty obligations under Section 5.5 (the "Term"); provided, however, that Cerulean shall have the right to terminate this Agreement at any time and for any reason upon thirty (30) days prior written notice to Calando. Unless Cerulean has certified in good faith to Calando in such termination notice that such termination was not made, in whole or in part, for a Safety Concern, then upon such termination by Cerulean, Cerulean shall (a) grant to Calando an exclusive (even as to Cerulean), transferable (as permitted pursuant to Section 13.1), irrevocable and perpetual, royalty-free, worldwide license, with the right to grant sublicenses, under the Assigned Patent Rights solely in order to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field, and (b) assign to Calando all right, title and interest in the IT-101 IND. Further, if Cerulean determines, in its sole discretion, that such a **[***]**, Cerulean agrees to **[***]** to such **[***]**, and the **[***]**, which **[***]** after the Effective Date and which **[***]**. "Safety Concern" means any toxicity, serious adverse event, side effect, issue associated with the therapeutic index, or other safety finding, whether in vitro, in animals or in humans, that leads to a determination that IT-101 exposes or could expose animals or humans to an unacceptable safety risk in relation to therapeutic benefit.

12.2 Remedy for Breach. If a Party (the "Breaching Party") is in breach of a material provision of this Agreement (including any breach of a material representation or warranty made in this Agreement), then the other Party (the "Non-Breaching Party") may deliver notice of such breach to the Breaching Party.

(a) If the Breaching Party fails to cure such breach within ninety (90) days after the Breaching Party's receipt of such notice, then the Non-Breaching Party may seek money damages from the Breaching Party with respect to such breach, which shall be the Non-Breaching Party's sole remedy, except as provided in Sections 5.7, 12.2(b) or 12.2(c).

(b) If Cerulean has breached a payment obligation under Section 5 and Cerulean fails to cure such payment breach within thirty (30) days after Cerulean's receipt of such notice, then Calando may, upon written notice to Cerulean, terminate this Agreement; provided, however, that if Cerulean disputes such breach, Calando may not terminate this Agreement unless and until such dispute is finally resolved in Calando's favor and Cerulean fails to cure such payment breach within thirty (30) days after such final resolution. In the case of a termination, Cerulean shall (i) grant to Calando an exclusive (even as to Cerulean), transferable (as permitted pursuant to Section 13.1), irrevocable and perpetual, royalty-free, worldwide license, with the right to grant sublicenses, under the Assigned Patent Rights solely in order to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field, and (ii) assign to Calando all right, title and interest in the IT-101 IND.

(c) If Cerulean has breached its obligations under Section 6.1 and Cerulean fails to cure such breach within ninety (90) days after Cerulean's receipt of such notice, then Calando may, upon written notice to Cerulean, convert the license granted in Section 3.1 to a non-exclusive license; provided, however, that if Cerulean disputes such breach, Calando may not convert such license unless and until such dispute is finally resolved in Calando's favor and Cerulean fails to cure such breach within ninety (90) days after such final resolution. In the case of a conversion to non-exclusivity, the royalties payable under this Agreement, as determined in accordance with Section 5.5, shall be reduced by **[***]** and Cerulean shall grant to Calando a non-exclusive, transferable (as permitted pursuant to Section 13.1), irrevocable and perpetual, royalty-free, worldwide license, with the right to grant sublicenses, under the Assigned Patent Rights solely in order to research, develop, make, have made, use, market, offer to sell, distribute, sell and import Licensed Products in the Field.

12.3 Challenges to Licensed Patent Rights. If Cerulean or an Affiliate of Cerulean challenges the validity or enforceability of any of the Licensed Patent Rights before any court, arbitrator or other tribunal or administrative agency in any jurisdiction, Calando shall have the right to terminate this Agreement on thirty (30) days prior written notice to Cerulean

12.4 Consequences of Termination.

(a) Upon any termination of this Agreement, the license to Cerulean of the Licensed IP shall terminate subject to the following. Cerulean shall, within thirty (30) days of the effective date of such termination, notify Calando in writing of the amount of Licensed Products which Cerulean and its Affiliates and Sublicensees then have completed in inventory, the sale of which would, but for the termination, be subject to royalty payments or payment of a portion of

Sublicense Income, and Cerulean and its Affiliates and Sublicensees shall thereupon be permitted during the six (6) months following such termination to sell that amount of Licensed Products; provided, however, that Cerulean shall pay the aggregate royalty or portion of Sublicense Income due thereon at the conclusion of the earlier of sixty (60) days after the last such sale or sixty (60) days after the end of such six (6)-month period. Except as provided herein, all sublicenses granted by Cerulean shall terminate upon the termination of this Agreement.

(b) Upon any termination of this Agreement, neither Party shall be relieved of any obligations incurred prior to such termination.

(c) Upon any termination of this Agreement, each Party shall promptly return to the other Party all tangible Confidential Information of the other Party.

(d) The following provisions shall survive the expiration or termination of this Agreement: Sections 2, 3.3 (if applicable), 5.9, 7.1, 7.2(a), 7.3(b), 8, 9.3, 10, 11, 12.1 (with respect to the license granted and the assignment made thereunder, if applicable), 12.2(b) (with respect to the license granted and the assignment made thereunder, if applicable), 12.4 and 13. Any licenses granted under Section 5.5(b)(iii) on or before the effective date of expiration or termination of this Agreement shall survive the expiration or termination of this Agreement.

SECTION 13. MISCELLANEOUS

13.1 Assignment. Neither this Agreement nor any of the rights or obligations hereunder may be assigned by either Party without the prior written consent of the other Party, except (a) each Party may assign this Agreement, in whole or in part, to an Affiliate of the assigning Party; provided, that the assigning Party guarantees the performance of such Affiliate of its obligations hereunder; (b) each Party may assign this Agreement, in whole, to a person who acquires all or substantially all of the business of the assigning Party by merger, sale of assets or otherwise (a "Sale Event"); and (c) each Party may exercise its rights or fulfill its obligations through its Affiliates, consultants, subcontractors and sublicensees; provided, that, such persons are bound by the corresponding obligations of such Party and such Party shall remain liable hereunder for the performance of its obligations hereunder. Any assignment not in accordance with the foregoing shall be void. Notwithstanding anything to the contrary herein, Calando shall not (i) assign this Agreement, in whole or in part, to any person unless Calando simultaneously assigns to such person all right, title and interest in, to and under the Licensed IP, the Caltech Agreement and the Caltech Side Letter, and (ii) assign any right, title or interest in or to the Licensed IP, except subject to the rights of Cerulean under this Agreement. This Agreement shall be binding upon, and shall inure to the benefit of, all permitted successors and assigns.

13.2 Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Delaware, excluding its conflicts of laws provisions.

13.3 Dispute Resolution. Any dispute, controversy or claim arising out of or relating to this Agreement, or the breach, termination or invalidity thereof, shall be resolved as follows:

(a) The chief executive officers of the Parties shall attempt to resolve such dispute through good faith negotiation. Any such resolution of a referred dispute by the chief executive officers shall be final and binding on the Parties.

(b) If the Parties' chief executive officers cannot resolve such dispute within thirty (30) days after either Party provides written notice of such dispute, then either Party may make a written demand for formal dispute resolution.

(c) Within thirty (30) days after such written demand, the Parties shall conduct a non-binding mediation administered by the American Arbitration Association in accordance with its commercial mediation rules. Unless otherwise mutually agreed upon by the Parties, the mediation proceedings shall be conducted at the location chosen by the Party not originally requesting the resolution of the dispute. The Parties shall share equally the cost of the mediation, including filing and hearing fees and the cost of the mediator(s). Each Party shall have the right, at its own expense, to be represented by counsel in such a proceeding.

(d) If such dispute is not resolved following mediation pursuant to Section 13.3(c), either Party may seek any remedy, at law or in equity, that may be available to it.

(e) Notwithstanding the foregoing provisions of this Section 13.3, each Party shall have the right at any time to institute judicial proceedings against the other Party or anyone acting by, through or under such other Party, in order to enforce the instituting Party's rights hereunder through reformation of contract, specific performance, injunction or similar equitable relief.

13.4 Amendment and Waiver. This Agreement may not be amended, nor any rights hereunder waived, except in a writing signed by the properly authorized representatives of each Party. The waiver by either Party of a breach or a default of any provision of this Agreement by the other Party shall not be construed as a waiver of any succeeding breach of the same or any other provision, nor shall any delay or omission on the part of either Party to exercise or avail itself of any right, power or privilege that it has or may have hereunder operate as a waiver of any right, power or privilege by such Party.

13.5 Notices. Any notice required or provided for by the terms of this Agreement shall be in writing, in the English language, and shall be (a) sent by certified mail, return receipt requested, postage prepaid, (b) sent via a reputable overnight air courier service, or (c) delivered by hand. Notices shall be effective when delivered to the addressee at the address listed in the first paragraph of this Agreement or such other address as the addressee shall have specified in the manner provided in this Section 13.5. The effective date of the notice shall be the actual date of receipt by the receiving Party.

13.6 No Agency. Nothing herein shall be deemed to constitute either Party as the agent or representative of the other Party or both Parties as joint venturers or partners for any purpose. Neither Party shall be responsible for the acts or omissions of the other Party, and neither Party will have authority to speak for, represent or obligate the other Party in any way without prior written authority from the other Party. Except for the Calando Indemnitees and the Cerulean Indemnitees, no person shall be a third party beneficiary of this Agreement.

13.7 Entire Agreement. This Agreement contains the full understanding of the Parties with respect to the subject matter hereof and supersedes all prior understandings and writings relating thereto, including the Prior Confidentiality Agreement; provided, however, that the Parties agree and acknowledge that the Platform Agreement, the Escrow Agreement and the Caltech Side Letter are being entered into concurrently herewith or have been entered into prior to the Effective Date and shall remain in effect.

13.8 Force Majeure. Neither Party will be held liable or responsible to the other Party nor be deemed to have breached this Agreement for failure or delay in fulfilling or performing any provision of this Agreement when such failure or delay results from causes beyond the reasonable control of the affected Party, which may include embargoes, acts of war (whether declared or not), insurrections, riots, civil commotions, acts of terrorism, strikes, lockouts or other labor disturbances, or acts of God. The affected Party will notify the other Party of such force majeure circumstances as soon as reasonably practical and will make every reasonable effort to mitigate the effects of such force majeure circumstances.

13.9 Severability. If any provision of this Agreement is held by a court of competent jurisdiction to be unenforceable because it is invalid or in conflict with any law of any relevant jurisdiction, the validity of the remaining provisions shall not be affected, and the rights and obligations of the Parties shall be construed and enforced as if the Agreement did not contain the particular provisions held to be unenforceable.

13.10 Export Compliance. The Parties acknowledge that the exportation from the United States of materials, products and related technical data (and the re-export from elsewhere of United States origin items) may be subject to compliance with United States export laws. Each Party shall comply with all applicable laws (whether U.S. or foreign) relating to the export, re-export, or release of any materials, products or their related technical data.

13.11 Counterparts and Facsimile Signatures. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. This Agreement may be executed by facsimile signature.

13.12 Construction. In construing this Agreement, unless expressly specified otherwise;

(a) references to Sections and Exhibits are to sections of, and exhibits to, this Agreement;

(b) use of either gender includes the other gender, and use of the singular includes the plural and vice versa;

(c) headings and titles are for convenience only and do not affect the interpretation of this Agreement;

(d) any list or examples following the word “include” or “including” shall be interpreted without limitation to the generality of the preceding words; and

(e) the language used in this Agreement shall be deemed to be the language chosen by the Parties to express their mutual intent, and no rule of strict construction shall be applied against either Party.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the Parties hereto have caused this IT-101 Agreement to be executed as a sealed instrument in their names by their properly and duly authorized officers or representatives as of the date first above written.

CERULEAN PHARMA INC.

By: /s/ Oliver Fetzer
Name: Oliver Fetzer
Title: Chief Executive Officer

CALANDO PHARMACEUTICALS, INC.

By: /s/ Christopher Anzalone
Name: Christopher Anzalone
Title: Chief Executive Officer

Arrowhead Research Corporation, hereby (a) guarantees Calando's performance under this Agreement, (b) makes the same representations and warranties to Cerulean as Calando makes to Cerulean under Section 9.1 and clauses (h)-(j) of Section 9.2, and (c) agrees to indemnify Cerulean to the same extent as Calando indemnifies Cerulean pursuant to Section 10.2 from any Losses relating to or in connection with a Third Party claim arising out of any breach by Arrowhead of its representations or warranties as described in clause (b), and for which indemnification Calando and Arrowhead shall be jointly and severally liable to Cerulean and the Cerulean Indemnitees.

ARROWHEAD RESEARCH CORPORATION

By: /s/ Christopher Anzalone
Name: Christopher Anzalone
Title: Chief Executive Officer

Exhibit 10.4

AGREEMENT REGARDING INTELLECTUAL PROPERTY

AND WAIVER OF PUT OPTIONS

This Agreement Regarding Intellectual Property and Waiver of Put Options (this "Agreement") is effective, made and entered as of June , 2009 (the "Agreement Date") by and between Unidym, Inc., a Delaware corporation ("Unidym"), and TEL Venture Capital, Inc., a Delaware corporation ("TEL"). All capitalized terms are defined in Article VII.

RECITALS

A. Unidym and TEL are parties to the Subscription Agreement dated as of November 11, 2008 (the "Subscription Agreement") pursuant to, among other things, TEL has a Put A Right and Put B Right, pursuant to which TEL has the right to require that Unidym repurchase the shares of Unidym's Series C-1 Preferred Stock held by TEL in the event that certain conditions are met.

B. Unidym has requested that TEL waive its Put A Right and Put B Right, and TEL has agreed to do so, subject to the terms and conditions set forth herein, including the transfer and license of certain intellectual property rights and a right to receive a fee on sales of certain CNT and CNT Products by Unidym and its licensees as provided hereunder.

AGREEMENT

In consideration of the covenants, promises and representations set forth herein, and for other good and valuable consideration, and intending to be legally bound hereby, the parties agree as follows:

ARTICLE I

TRANSFER OF EQUIPMENT RELATED IP

1.1 Upon the terms and subject to the conditions contained in this Agreement, Unidym shall sell, transfer, convey, assign and deliver, or cause to be sold, transferred, conveyed, assigned and delivered, to TEL on the Closing Date, and TEL shall acquire from Unidym, free and clear of any Lien, all of Unidym's right, title and interest in and to the Equipment Related IP as set forth on Schedule 1.1; provided, however, that the Equipment Related IP shall be co-owned between the parties hereto as identified on such schedule and to the extent and subject to the conditions set forth in Section 1.6 hereof.

1.2 The closing of the Transactions (the "Closing") shall take place at the offices of Unidym, on the Agreement Date, or at such other date (the "Closing Date") and location as Unidym and TEL agree.

1.3 Unidym Deliveries. On the Closing Date, Unidym shall deliver to TEL the following, all of which shall be in form satisfactory to TEL:

(a) the General Assignment and Bill of Sale in substantially the form attached hereto as Exhibit 1.3(a);

(b) Assignments in substantially the form attached hereto as Exhibit 1.3(b) with respect to the patent and patent applications in the Equipment Related IP, for filing in the United States Patent and Trademark Office and its foreign counterparts;

(c) the CNT Products Materials as contemplated by Section 2.2;

(d) a copy of the resolution(s) adopted by the Unidym Board authorizing the Transactions;

(e) a letter of intent from Continental Carbon Nanotechnologies ("CCNI") stating that, if Unidym does not meet its obligations under the CNT Supply Agreement with CCNI, CCNI would enter into discussions, in good faith, to establish a supply agreement with TEL, or TEL Affiliate;

(f) binding commitments from (i) one or more third parties to purchase shares of Unidym's Series C-1 Preferred Stock in the amount of at least $975,000 (including any monies invested from and after April 23, 2009 in exchange for Series C-1 Preferred Stock, or the conversion into Series C-1 Preferred Stock of any monies provided as bridge loans from and after April 23, 2009 and intra-company accounts payable, up to a maximum of $100,000, by Unidym to Arrowhead accruing from and after May 13, 2009); and (ii) Arrowhead Research Corporation ("Arrowhead") to convert to Series C-1 Preferred Stock any outstanding intra-company accounts payable by Unidym, in each case conditioned only on, and to close concurrently with, the Closing of this Agreement; and

(g) such other good and sufficient instruments of conveyance, assignment and transfer, in form and substance reasonably acceptable to TEL, as shall be effective to vest in TEL good title in its rights to the Equipment Related IP.

1.4 TEL Deliveries. On the Closing Date, TEL shall deliver to Unidym the following, all of which shall be in form satisfactory to Unidym:

(a) the General Assignment and Bill of Sale in substantially the form attached hereto as Exhibit 1.3(a).

1.5 Mutual Deliveries. On the Closing Date, the Parties shall execute and deliver such other instruments and documents as reasonably requested by the Parties to carry out and effect the purpose and intent of this Agreement.

1.6 Co-Owned Equipment Related IP. With respect to the patents and the patent applications (including provisional patent applications) in the Equipment Related IP that will be co-owned by the Parties pursuant to this Agreement (the "Co-Owned Patents"), TEL and Unidym agree as follows:

(a) TEL and Unidym shall cooperate to prosecute and maintain the Co-Owned Patents.

(b) TEL and Unidym shall share equally all costs associated with prosecuting and maintaining the Co-Owned Patents arising and incurred after the Closing Date. If either TEL or Unidym wishes to stop the payment of its share of the maintenance fees or prosecution costs associated with a Co-Owned Patent in any country, the other Party may take over the payment of such share. The Party discontinuing to pay its share shall transfer to the other Party which continues such payments, its title to, rights and interests in such Co-Owned Patents for the countries concerned. The rights of third parties under already existing licenses and agreements shall not be prejudiced.

(c) TEL shall have the sole and exclusive right, without the consent of Unidym, to file a lawsuit or otherwise enforce any action using any of the Co-Owned Patents against any TEL Competitor. Unidym shall cooperate as necessary and requested by TEL, including joining of a lawsuit. TEL shall be responsible for all costs and expenses incurred in connection with such lawsuit or action (including the reasonable costs and expenses incurred by Unidym in cooperating with TEL as requested by TEL) , and shall be entitled to any and all proceeds resulting from such lawsuit or action, without having to account to Unidym. TEL shall have the further sole and exclusive right, without the consent of Unidym, to grant a license under any of the Co-Owned Patents to any TEL Competitor and shall be entitled to any and all proceeds (whether in the form of royalties, fees, or otherwise) resulting from such license, without having to account to Unidym.

(d) Unidym shall have the sole and exclusive right, without the consent of TEL, to file a lawsuit or otherwise enforce any action using any of the Co-Owned Patents against any Unidym Competitor. Unidym shall be responsible for all costs and expenses incurred in connection with such lawsuit or action (including the reasonable costs and expenses incurred by TEL in cooperating with Unidym as requested by Unidym) , and shall be entitled to any and all proceeds resulting from such lawsuit or action, without having to account to TEL. Unidym shall have the further sole and exclusive right, without the consent of TEL, to grant a license under any of the Co-Owned Patents to any Unidym Competitor and shall be entitled to any and all proceeds (whether in the form of royalties, fees, or otherwise) resulting from such license, without having to account to TEL.

(e) Neither Party shall grant a license to, or file a lawsuit or otherwise enforce or attempt to enforce any action using any of the Co-Owned Patents against a third party that is both a TEL Competitor and a Unidym Competitor without the consent of the other Party.

(f) Except as otherwise authorized in clauses (c) and (d) above, neither Party shall grant a license, or file a lawsuit or otherwise enforce or attempt to enforce any action using any of the Co-Owned Patents without the consent of the other Party.

(g) The Parties agree to cooperate in the prosecution of any patent applications (including any provisional patent applications) of any Co-Owned Patent so that, to the extent reasonably practicable, the claims therein are divided into separate patents or patent applications, as the case may be, that would be solely owned by TEL, in the case of any patent containing only claims that are related to Equipment or Equipment Process, or solely by Unidym, in the case of any patent that has no claims that are related to Equipment or Equipment Process; provided, however, that any such division of a patent application shall be approved by both Parties. TEL agrees to assign, transfer and convey to Unidym all of its remaining rights and interest in any resulting patent or patent application that the Parties have agreed should be solely owned by Unidym, and Unidym agrees to assign, transfer and convey to TEL all of its remaining rights and interest in any resulting patent or patent application that the Parties have agreed should be solely owned by TEL, as provided hereunder. Each Party further agrees to delivery such instruments of conveyance, assignment and transfer, in form and substance reasonable acceptable to the other Party, as shall be effective to vest in the other Party good title to such patent or patent application.

(h) To the extent it can do so without breaching a contract with a third party, Unidym agree to promptly disclose to TEL any Intellectual Property related to Equipment or Equipment Process that Unidym may invent after the Closing Date. TEL shall have the right, by giving notice to Unidym no later than three months following the date of such disclosure, to elect to obtain a world-wide, perpetual, irrevocable, non-terminable, fully paid-up, non-exclusive, transferable, sublicensable right and license of such subsequently invented Intellectual Property, in which case TEL shall be responsible for the reasonable costs required to prepare, file and prosecute any patent applications and to maintain any issued patents arising from such subsequently invented Intellectual Property. In addition, TEL shall have the exclusive right of first negotiation to negotiate, for a period of six months, to convert such license into an exclusive but royalty-bearing license with respect to any such subsequently invented Intellectual Property to which TEL has taken a non-exclusive license as contemplated by the preceding sentence, by giving notice at any time prior to the three- month anniversary of the date that such patent issues, in the case of any such Intellectual Property that is patentable, or prior to the first anniversary of Unidym's disclosure as contemplated by this clause (h), in the case of any such Intellectual Property that is not patentable. Unidym agrees not to grant any license to a third party that would be inconsistent with its ability to grant an exclusive license of any such subsequently invented Intellectual Property to TEL until such time as TEL's right of first negotiation hereunder has expired or has been waived.

(i) TEL shall have the right to assign all or any portion of its rights in the Co-Owned Patents to a TEL Affiliate without the prior consent of Unidym.

ARTICLE II

LICENSE OF MATERIALS RELATED IP

2.1 Grant of License. Subject to the terms and conditions of this Agreement, effective as of the Closing, except for the Intellectual Property licensed to Unidym under the

License Agreements, Unidym hereby grants to TEL, a world-wide, perpetual, irrevocable, non-terminable, fully paid-up, royalty-free, non-exclusive, transferable, sublicensable right and license under all of Unidym's rights under the CNT Products IP to make, have made, use, import, market, sell and distribute CNT Products solely in the LCD Field and the Solar Field (the "CNT Products License").

2.2 Deliverables. At the Closing, Unidym shall deliver to TEL a copy of a document entitled "Unidym Trade Secrets LCD Ink and Film Making" (the "CNT Products Materials") setting forth the most updated technical information and documentation, including formulas and recipes, for producing CNT Products from CNT for use in the LCD Field and, to the extent available, the Solar Field. Unidym further agrees to deliver to TEL, on no less frequent than a quarterly basis, any updated version of the CNT Products Materials to ensure that the CNT Products Materials then in TEL's possession contains the most updated technical information and documentation then held by Unidym.

2.3 Covenant Not to Exercise Certain Rights. Notwithstanding the foregoing grant of the CNT Products License, TEL agrees that it will not exercise its rights under the CNT Products License (other than its Non-Commercial Rights), unless and until there has been a Release Event. "Release Event" shall mean any of the following:

(a) A receiver, trustee, or similar officer is appointed for the business or property of Unidym, or Unidym files a petition in bankruptcy, files a petition seeking any reorganization, makes an arrangement, composition, or similar relief under any law regarding insolvency or relief for debtors, or makes an assignment for the benefit of creditors;

(b) any involuntary petition or proceeding under bankruptcy or insolvency laws is instituted against Unidym and not stayed, enjoined, or discharged within 60 days;

(c) any similar or analogous proceedings or event to those in clauses (a) to (b) above occurs in respect of Unidym within any jurisdiction outside the USA;

(d) Unidym ceases to carry on its Inks/Films Business;

(e) Unidym takes any action to liquidate and dissolve; or

(f) Unidym generally fails to pay its debts and obligations when due (after taking into account any cure periods) in the ordinary course of its business;

provided, that in the case of a Release Event described in clauses (d) and (f) above, no Release Event shall be deemed to have occurred unless and until such determination has been made pursuant to the following procedures:

(x) TEL shall send a notice to Unidym indicating its good faith belief that such a Release Event has occurred, together with any supporting evidence;

(y) Unless within 10 Business Days after the date of such notice TEL receives a counter-notice in writing from Unidym stating that in its view no such Release

Event has occurred, together with any supporting evidence, or, if appropriate, that the event or circumstance giving rise to the Release Event has been rectified as shown by documentation in support thereof, the Release Event shall deemed to have occurred; and

(z) If TEL receives such a counter-notice within the 10 Business Day period set forth above, TEL and Unidym agree to discuss in good faith a resolution to the issue of whether or not a Release Event has occurred and remains unrectified. If the parties are not able to resolve their dispute regarding whether or not such a Release Event has occurred within 90 days after the date of such counter-notice, either Party may invoke the dispute resolution procedure set forth in Section 8.9(c) hereof;

Notwithstanding the foregoing, upon (a) Unidym achieving Net Sales of CNT Related Products of $10 million or more during a 12-month period; or (b) the acquisition of a controlling interest in Unidym by a well-capitalized chemical, materials or similar company with the capacity and strategic goal to engage in the Inks/Films Business, as determined by TEL in its reasonable discretion, the CNT Products License shall be deemed to have been revised to be limited to the Non-Commercial Rights only, and the occurrence of a Release Event at any time thereafter shall have no effect on the scope of the CNT Products License.

2.4 Assignment to TEL Affiliate. TEL shall have the right to assign all or any portion of the licensed rights granted pursuant to this Article II to a TEL Affiliate without the prior consent of Unidym.

2.5 Confidentiality. TEL agrees to maintain in confidence and not to disclose to any third party the CNT Products Materials, other than to its employees or contractors (or those of a TEL Affiliate or a permitted sublicensees or assignees, if any) who need to know the same in order to use the CNT Products Materials within the scope of the CNT Products License or for any other purpose authorized in writing by Unidym. In the event that CNT Products Materials is disclosed to TEL's employees or contractors (or those of its Affiliates and permitted sublicensees or assignees), TEL shall ensure that they are bound by the same confidentiality obligations as are contained in this Section 2.5. The foregoing obligation shall not apply to:

(a) Information that is known to TEL or a TEL Affiliate prior to the time of disclosure to TEL, as evidenced by written records;

(b) Information disclosed to TEL by a third party that has no obligation to maintain the confidentiality thereof;

(c) Information that is independently developed by TEL or one of its Affiliates without the use of the CNT Products Materials;

(d) Information that becomes part of the public domain through no fault of TEL or a breach of the confidentiality obligations set forth herein; or

(e) Information that is required to be disclosed by order of a Governmental Entity, provided that TEL shall use its commercially reasonable efforts to notify Unidym prior to the disclosure of such information and, if requested by Unidym, cooperate with Unidym to seek to obtain confidential treatment of such information by such Governmental Entity.

ARTICLE III

REPRESENTATIONS AND WARRANTIES OF UNIDYM

Unidym represents and warrants to TEL as follows:

3.1 Organization of Unidym. Unidym is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware. Unidym has the requisite corporate power and authority to own, lease and operate its properties and to carry on its business as now being conducted.

3.2 Authority.

(a) Unidym has all requisite corporate power and authority to enter into this Agreement, and each other agreement, certificate or document contemplated thereby or hereby (collectively with the Agreement, the "Transaction Agreements") to which it is or will be a party and to consummate the Transactions. Unidym's Board of Directors has approved the Transaction Agreements to which it is or will be a party and the Transactions. The execution, delivery and performance by Unidym of this Agreement and the other Transaction Agreements to which it is or will be a party and the consummation by Unidym of the Transactions have been duly authorized by all necessary corporate action on the part of Unidym and no further action is required on the part of Unidym to authorize the Transaction Agreements to which it is or will be a party and the Transactions. The approvals of Unidym's Board of Directors have not been revoked, rescinded or amended.

(b) This Agreement has been, and each of the other Transaction Agreements to which Unidym is a party will be at the Closing Date, duly executed and delivered by Unidym and, assuming the due authorization, execution and delivery by the other parties hereto and thereto (other than Unidym), this Agreement constitutes, and in the case of such Transaction Agreements they will at the Closing Date constitute, valid and binding obligations of Unidym, enforceable against Unidym in accordance with their respective terms, except as such enforceability may be subject to applicable bankruptcy, reorganization, insolvency, moratorium and similar laws affecting the enforcement of creditors' rights generally and by general principles of equity.

3.3 No Conflict. The execution and delivery by Unidym of this Agreement and each other Transaction Agreement to which Unidym is a party, and the consummation of the Transactions, do not and will not conflict with or result in any violation of or default under (with or without notice or lapse of time, or both) or give rise to a right of termination, cancellation or acceleration of any obligation or loss of any benefit under, or result in the creation of any lien upon any of Unidym's properties or assets (tangible or intangible) under (i) any provision of Unidym's Certificate of Incorporation, By-Laws or other organizational documents of Unidym, (ii) any material contract to which Unidym is a party or to which it or any of its properties or

assets (whether tangible or intangible) is subject or bound, or (iii) any law applicable to Unidym or any of its properties or assets (whether tangible or intangible), except, in the case of (ii) or (iii), for such conflicts, violations or defaults as would not individually or in the aggregate reasonably be expected to be material to Unidym's ability to consummate the Transactions to which they are a party in a timely manner.

3.4 Consents. No consent, waiver, approval, order or authorization of, or registration, declaration or filing with, or notice to any Governmental Entity, is required by, or with respect to, Unidym in connection with the execution and delivery of this Agreement and the other Transaction Agreements to which Unidym is a party or the consummation of the Transactions.

3.5 Solvency.

(a) Unidym has not, at any time, (i) made a general assignment for the benefit of creditors, (ii) filed, or had filed against it, any bankruptcy petition or similar filing, (iii) suffered the attachment or other judicial seizure of all or a substantial portion of its assets, (iv) admitted in writing its inability to pay its debts as they become due, or (v) been convicted of, or pleaded guilty or no contest to, any felony.

(b) Unidym is not insolvent.

3.6 Absence of Liens.

(a) Unidym has good and valid title to all of the Equipment Related IP, free and clear of any Liens.

3.7 Intellectual Property.

(a) The Equipment Related IP constitutes all of the Intellectual Property rights owned by Unidym that relate to Equipment or Equipment Process, and Unidym has the right to transfer such Equipment Related IP to TEL as contemplated hereunder.

(b) All of the Equipment Related IP is exclusively owned by Unidym, and no other Person has any rights therein. Except for the licenses granted pursuant to the joint development agreements with Samsung Electronics and LG Display, Unidym has not granted a license or similar right (including a covenant not to sue), or agreed to grant such a license or similar right, to any third party of any of the Equipment Related IP. To Unidym's Knowledge, the Equipment Related IP was created solely by employees of Unidym acting within the scope of their employment, or by third parties, all of which employees and third parties have validly and irrevocably assigned all of their rights, including Intellectual Property rights therein, to Unidym.

(c) Unidym has no Knowledge of any facts, circumstances or information that would render any Equipment Related IP invalid or unenforceable or would adversely affect any pending application for any Registered Intellectual Property included in the Equipment Related IP. All necessary registration, maintenance and renewal fees in connection with such Registered Intellectual Property have been paid.

(d) Unidym has taken commercially reasonable measures consistent with industry standards to protect the proprietary nature of the Equipment Related IP and to maintain in confidence all trade secrets and confidential information included in the Equipment Related IP.

(e) The CNT Products Materials contain the most recently updated technical information and documentation held by Unidym that relates to the CNT Products IP, and is sufficient to enable TEL to exercise all of its rights under the CNT Products License in the LCD Field and, to the extent available, the Solar Field. The CNT Products IP constitutes all of the Intellectual Property rights owned or licensed by Unidym that relate to the production of CNT Products from CNT for use in the LCD Field.

3.8 Litigation. There is no material action, suit or proceeding of any nature pending or, to Unidym's Knowledge, threatened against Unidym or any of their respective properties and Unidym is not subject to any outstanding order of any Governmental Entity that, in either case, would be reasonably likely, individually or in the aggregate, to (a) prevent or materially delay the consummation of the Transactions, (b) otherwise prevent or materially delay performance by Unidym of any of their material obligations under this Agreement, or (c) which would reasonably be expected to have, individually or in the aggregate, a material adverse effect on the business, assets, properties, liabilities, obligations, financial condition, operations or results of operations of Unidym.

3.9 Brokers' and Finders' Fees. Unidym has not incurred, or will incur, directly or indirectly, any liability for brokerage or finders' fees or agents' commissions or any similar charges in connection with this Agreement or any of the other Transactions.

3.10 Representations Exclusive. Except for the representations and warranties expressly set forth in this Article III or any certificates furnished by Unidym or an officer of the Unidym pursuant to this Agreement, neither Unidym nor any other Person makes any express or implied representations or warranties on behalf of Unidym.

ARTICLE IV

REPRESENTATIONS AND WARRANTIES BUYER

TEL represents and warrants to Unidym as follows:

4.1 Organization of TEL. TEL is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware. TEL has the full power and authority to own its properties and to carry on its business as now being conducted.

4.2 Authority.

(a) TEL has all requisite power and authority to enter into this Agreement and the other Transaction Agreements to which it is a party and to consummate the Transactions. The Board of Directors of TEL has approved the Transaction Agreements to which it is or will be a party and the Transactions. The execution and delivery of this Agreement and the other Transaction Agreements to which TEL is a party and the

consummation of the Transactions have been duly authorized by all necessary action on the part of TEL. The approvals by TEL's Board of Directors have not been revoked, rescinded or amended.

(b) This Agreement has been, and each of the other Transaction Agreements to which TEL is a party will be at the Closing Date, duly executed and delivered by TEL and, assuming the due authorization, execution and delivery by the other parties hereto and thereto (other than TEL), this Agreement constitutes, and in the case of the other Transaction Agreements they will at the Closing Date constitute, valid and binding obligations of TEL, enforceable against TEL in accordance with their respective terms, except as such enforceability may be subject to applicable bankruptcy, reorganization, insolvency, moratorium and similar Laws affecting the enforcement of creditors' rights generally and by general principles of equity.

4.3 No Conflict. The execution and delivery by TEL of this Agreement and the other Transaction Agreements to which either is a party, and the consummation of the Transactions, do not and will not conflict with or result in any violation of or default under (with or without notice or lapse of time, or both) or give rise to a right of termination, cancellation, modification or acceleration of any obligation or loss of any benefit under (i) any provision of the TEL Certificate of Incorporation or TEL's By-Laws, (ii) any material contract to which TEL is a party or to which it or any of its properties or assets (whether tangible or intangible) is subject or bound, or (iii) any Law applicable to TEL or any of its properties (whether tangible or intangible) or assets, except, in the case of (ii) or (iii), for such conflicts, violations or defaults as would not individually or in the aggregate reasonably be expected to be material to TEL's ability to consummate the Transactions to which they are a party in a timely manner.

4.4 Consents. No consent, waiver, approval, order or authorization of, or registration, declaration or filing with, or notice to, any Governmental Entity, is required by or with respect to TEL in connection with the execution and delivery of this Agreement and the other Transaction Agreements by TEL or the consummation by TEL of the Transactions.

4.5 Litigation. There is no material action, suit or proceeding of any nature pending or, to the Knowledge of TEL, threatened, against TEL or any of their respective properties and TEL is not subject to any outstanding order of any Governmental Entity that, in either case, would be reasonably likely, individually or in the aggregate, to (a) prevent or materially delay the consummation of the Transactions, (b) otherwise prevent or materially delay performance by TEL of any of their material obligations under this Agreement, or (c) which would reasonably be expected to have, individually or in the aggregate, a material adverse effect on the business, assets, properties, liabilities, obligations, financial condition, operations or results of operations of TEL.

4.6 Brokers' and Finders' Fees. TEL has not incurred, nor will incur, directly or indirectly, any liability for brokerage or finders' fees or agents' commissions or any similar charges in connection with this Agreement or any of the other Transactions.

ARTICLE V

ADDITIONAL COVENANTS

5.1 Amendment and Waiver of Put Rights.

(a) Subject to the terms and conditions set forth herein, and effective on the Closing Date, TEL and Unidym agree to amend Section 5 of the Subscription Agreement as follows:

(i) Section 5.1(a) of the Subscription Agreement is amended to read as follows in its entirety:

"Notice. In the event that the Company and the Investor do not enter into a joint development agreement by July 31, 2009, the Investor shall have until 5:00 p.m. (California Time) on August 31, 2009 (such time, the "***Put A Deadline***"), to deliver a written notice to the Company (the "***Put A Notice***"), requesting that the Company repurchase all (but no less than all) of the Shares then held by the Investor that were purchased under this Agreement or issued under Section 4 hereof, as applicable. The Investor shall have no rights under this Section 5.1 in the event that (i) the Company and the Investor enter into a joint development agreement by July 31, 2009, or (ii) the Investor fails to deliver a Put A Notice to the Company by the Put A Deadline."

(ii) Section 5.2(a) of the Subscription Agreement is amended to read as follows in its entirety:

"Notice. In the event that the Company has failed to achieve the Cash Flow Requirement (as defined below) by July 31, 2009, the Investor shall have until 5:00 p.m. (California Time) on August 31, 2009 (such time, the "***Put B Deadline***"), to deliver a written notice to the Company (the "***Put B Notice***"), requesting that the Company repurchase all (but no less than all) of the Shares then held by the Investor that were purchased under this Agreement. The Investor shall have no rights under this Section 5.2 in the event that (i) the Company has achieved the Cash Flow Requirement by July 31, 2009, or (ii) the Investor fails to deliver a Put B Notice to the Company by the Put B Deadline. "Cash Flow Requirement" shall mean the receipt by the Company of cash proceeds of at least $7,000,000 during the period from the date of this Agreement through July 31, 2009 from any combination of (i) the sale by the Company of any equity securities of the Company (other than the sale of the Shares); (ii) the sale or license by the Company of some or all of its assets and/or business operations in materials for anti-static polymers and other applications such as carbon fibers; (iii) the sale by the Company of its shares in Nanoconduction, Ensysce Biosciences, or Nexeon MedSystems; or (iv) net cash flow from the Company's operations during such period (it being understood that if such net cash flow is negative, then the amount for purposes of this clause (iv) shall be zero)."

(b) Subject to the terms and conditions set forth herein, and effective only from and after the Funding Date, TEL agrees to waive forever its Put A Right and its Put B Right with respect to any shares of Unidym's Series C-1 Preferred Stock held by TEL as of the Funding Date. The term "Funding Date" shall mean the date that Unidym has notified TEL that Unidym has received at least $1,500,000 after the Closing Date from purchasers of shares of its Series C-1 Preferred Stock (after including the amounts described in Section 1.3(f) hereof), together with evidence reasonably satisfactory to TEL showing that such amount has been received by Unidym. The agreement of TEL to waive its Put A Right and its Put B Right set forth in this Section 5.1(b) shall be null and void if the Funding Date has not occurred on or before July 31, 2009.

5.2 Exclusivity. For a period of ten (10) years from the date of closing, TEL shall have the exclusive right to work with Unidym to develop Equipment and accordingly, Unidym agrees that during such period it shall not, either independently or jointly with a party other than TEL or a TEL Affiliate designated by TEL undertake to, or authorize or subcontract a party other than TEL Affiliate to, design, exchange specifications or other confidential information relating to, conduct trials or other tests, or otherwise develop, market or sell such Equipment (including Equipment Process), or agree to or enter into any discussions with respect to any of the above. Nothing herein is intended to limit the activities of TEL with regard to the Equipment, Equipment Process, or CNT Products.

5.3 Fee on Sales.

(a) TEL shall be entitled to receive a fee (the "CNT Fee") equal to two percent (2%) of Net Sales of CNT Related Products on a worldwide basis for a period of ten years from the date of first sale of CNT or CNT Products for the LCD Field or the Solar Field, or until terminated in accordance with Section 5.3(k) below (such period being the "Fee Period"), regardless of whether the CNT or CNT Products are used in Equipment manufactured by TEL Affiliate and regardless of whether the CNT or CNT Products are distributed by TEL.

(b) Unidym shall deliver to TEL within forty-five (45) days after the end of each calendar quarter, any part of which is within the Fee Period, a written report, certified by the chief financial officer of Unidym and setting forth in reasonable detail the calculation of the CNT Fee due to TEL for such calendar quarter pursuant to this Section 5.3, including, without limitation:

(i) Net Sales of CNT Related Products, indicating separate totals by seller (i.e. listing separately sales by Unidym and, to the extent applicable, any assignee, Affiliates and any Inks Licensee), the type of CNT or CNT Product sold, whether the CNT or CNT Products are for use in the LCD Field or Solar Field, customer, and country in which the sales occurred; and

(ii) Calculation of the amount of the CNT Fee payable pursuant to this Section 5.3.

(c) Unidym shall accompany each report under Section 5.3(b) with the payment of the CNT Fee due to TEL hereunder. If no amounts are due to TEL for any reporting period, the report shall so state.

(d) Unidym shall maintain, and cause any assignee, Affiliates and Inks Licensees, as applicable, to maintain, complete and accurate books and records that enable the CNT Fee to be verified. The records for each calendar quarter shall be maintained for five (5) years after the submission of each report under Section 5.3(b) .

(e) Upon reasonable prior notice to Unidym or any of its assignees, Affiliates or Inks Licensees, as applicable, TEL or its appointed accountants shall have access to such books and records relating to the calculation of Net Sales of CNT Related Products as necessary to conduct a review or audit of Net Sales of CNT Related Products. Such access shall be available to TEL not more than once each calendar year during the Fee Period, during normal business hours, and once a year for five years after the end of the Fee Period.

(f) If an audit of Unidym's or an assignee's, Affiliate's, or Inks Licensee's records, as the case may be, indicate that Unidym has underpaid the CNT Fees by five percent (5%) or more, Unidym shall pay the costs and expenses incurred by TEL and its accountants, if any, in connection with the review or audit.

(g) Unidym shall have its financial statements audited by nationally or regionally recognized qualified auditors on an annual basis during the Fee Period, and will deliver a copy of such audited financial statements and any accompanying auditor's report to TEL within ninety (90) days after the end of each of Unidym's fiscal years, any part of which are within the Fee Period.

(h) All payments of the CNT Fee to TEL shall be made in United States dollars. If Unidym receives revenues from Net Sales of CNT Related Products in a currency other than United States dollars, revenues shall be converted into United States dollars at the conversion rate for the foreign currency used by Unidym's bank on the day the bank credits such funds to Unidym's account.

(i) Amounts that are not paid when due hereunder shall accrue interest from the due date until paid, at a rate equal to one and one-half percent (1.5%) per month (or the maximum allowed by law, if less).

(j) TEL shall have the right to assign its right to receive the CNT Fee to a TEL Affiliate without the prior consent of Unidym.

(k) If the Parties enter into a definitive agreement with regard to the JDP as contemplated by Section 5.7 below, the Parties intend that the terms of that agreement (including the payment of fees contemplated thereunder) will supersede the CNT Fee payable under Section 5.3(a), and Unidym's obligation to pay the CNT Fee shall cease.

5.4 Certain Notifications. Unidym agrees that it will use its best efforts to provide TEL with at least thirty (30) days prior written notice before Unidym takes any action (a) to cease to carry on its CNT related business; or (b) with respect to any Release Event described in Section 2.3(a) or 2.3(e), and, after providing such notice and if requested by TEL, to negotiate in good faith for such thirty day period (or such longer period as the Parties may agree) with respect to a possible acquisition by TEL or TEL Affiliate of all or a portion of the assets of Unidym, or all or a portion of the outstanding stock of Unidym.

5.5 License Agreements. To the extent it can do so without breaching a contract with a third party, Unidym and TEL hereby agree to negotiate in good faith from the closing date through December 31, 2009 a sublicense under the License Agreements for all Intellectual Property rights thereunder necessary for the Inks/Films Business. At a minimum, if requested by TEL, Unidym agrees to grant to TEL a sublicense with respect to such intellectual property rights that conforms to the requirements of an authorized sublicense under the License Agreements, if any, subject to the approval of the licensor thereunder. Any additional terms and conditions would be subject to further negotiation between the Parties, as well as to the approval of the licensor thereunder. If requested by TEL, Unidym agrees in good faith to seek the approval of the licensor for each such sublicense as required under the respective License Agreement such that, (a) in the event the License Agreement is terminated, the licensor will continue to recognize and honor the sublicensed rights of TEL; and (b) to the extent obtainable, TEL shall have the right to assign its rights under such sublicense to a TEL Affiliate without the prior consent of the licensor.

5.6 CNT Production. Unidym agrees that IF (a) it fails to complete the "Second Phase Closing" as defined in the Asset Purchase Agreement between Unidym and CCNI dated April , 2009 by no later than August 31, 2009; or (b) at any time after entering into a definitive CNT Supply Agreement, Unidym exercises its right to terminate such agreement based on a material breach by CCNI of its obligations thereunder (such as the obligation to produce CNT that meets the specifications required to support the development, sale and use of the Equipment, or to produce such CNT in sufficient quantity to support the development, sale and use of the Equipment); AND, in each case, (i) Unidym fails within thirty (30) days thereafter to present to TEL a financially viable plan by Unidym to manufacture CNT on its own, and (ii) CCNI and TEL are unable to agree, prior to the end of such thirty (30) day period, upon the terms and conditions of a new contract manufacturing agreement pursuant to which CCNI would supply CNT to TEL and/or a TEL Affiliate; THEN, Unidym agrees, upon the request of TEL, to grant to TEL, a world-wide, perpetual, irrevocable, non-terminable, fully paid-up, royalty-free, non-exclusive, transferable, sublicensable right and license under all of Unidym's Intellectual Property rights (excluding a sublicense of any third party Intellectual Property licensed to Unidym under the License Agreements) to make, have made, use, import, market, sell and distribute CNT solely in the LCD Field and the Solar Field, and further agrees to transfer to TEL any and all know-how, technical information and documentation, including formulas and recipes, reasonably necessary and useful for producing CNT for use in the LCD Field and the Solar Field.

5.7 Joint Development Program. Unidym and TEL hereby agree to negotiate in good faith from the Closing Date through September 30, 2009 with respect to a joint development program ("JDP") to develop the Equipment. Under the JDP:

(a) Unidym agrees to work exclusively with TEL (or a TEL Affiliate designated by TEL, the "TEL JDP Partner") for four years to develop the Equipment, subject to the Parties meeting certain agreed upon objectives and milestones;

(b) Any invention arising out of the JDP, including all intellectual property rights thereto (hereafter, collectively, "JDP Intellectual Property") shall be handled as follows:

(i) Any Equipment-related JDP Intellectual Property that is developed solely by the TEL JDP Partner, or jointly by both Parties, would be owned by the TEL JDP Partner.

(ii) Any Equipment-related JDP Intellectual Property developed solely by Unidym would be owned by Unidym, subject to an exclusive license to TEL JDP Partner for a period to be determined in the final JDP agreement, with the right to assign such license to any TEL Affiliate without the prior consent of Unidym.

(iii) Any JDP Intellectual Property related to the Equipment Process, whether developed solely by one of the Parties or jointly by the Parties, would be jointly owned by the TEL JDP Partner and Unidym, subject to a covenant that Unidym will not license any such jointly owned JDP Intellectual Property to a TEL Competitor.

(c) TEL JDP Partner (or any TEL Affiliate designed by it) would have the right to distribute CNT Products on a worldwide basis, with the exclusive right to distribute the CNT Products to manufacturers of liquid crystal displays and thin film solar panels in Japan for a period to be agreed upon by the Parties.

(d) TEL JDP Partner would be entitled to receive a fee, as compensation for its development activities under the JDP, equal to two percent (2%) of Net Sales of CNT Related Products on a worldwide basis for a period of ten years from the date of first sale of CNT or CNT Products in the LCD Field or the Solar Field, regardless of whether the CNT or CNT Products are used in Equipment manufactured by a TEL Affiliate and regardless of whether the CNT or CNT Products are distributed by a TEL Affiliate.

ARTICLE VI

INDEMNIFICATION, ETC.

6.1 Survival of Representations, Warranties and Covenants. The respective agreements and obligations of TEL and Unidym contained in this Agreement, any Transaction Agreement or in any certificate, document or other instrument delivered pursuant to or in connection herewith or therewith shall survive the execution and delivery of this Agreement or any such Transaction Agreement, any investigation by or on behalf of any party hereto. Any investigation or other examination that may have been made by any party seeking indemnification under this Agreement on or before the Closing Date shall not limit, diminish or in any way affect the representations and warranties of TEL or Unidym, as the case may be, set

forth in this Agreement, any Transaction Agreement or any certificate, document or other instrument delivered pursuant to or in connection herewith or therewith, and such party may rely on such representations, warranties and covenants irrespective of any information obtained by such party by any investigation, examination or otherwise.

6.2 Indemnification.

(a) Subject to the terms and conditions of this Article VI, Unidym shall indemnify, defend and hold harmless TEL and each of its respective officers, directors, employees, members, agents and Affiliates (the "TEL Group") against any and all claims, losses, liabilities, damages, deficiencies, interest and penalties, costs and expenses, including reasonable attorneys' fees and expenses, and expenses of investigation and defense (hereinafter individually a "Loss" and collectively "Losses") incurred or suffered by any member of the TEL Group, directly or indirectly, as a result of:

(i) the breach of any representation or warranty of Unidym set forth herein or in any related certificate delivered pursuant to this Agreement; or

(ii) any failure by Unidym to perform, fulfill or comply with any covenant set forth in this Agreement required to be performed.

(b) Subject to the terms and conditions of this Article VI, TEL shall indemnify, defend and hold harmless Unidym and its respective officers, directors, employees, members, agents and Affiliates (the "Unidym Group"), against any and all Losses incurred or suffered by any member of the Unidym Group, directly or indirectly, as a result of:

(i) any misrepresentation or breach of a warranty of TEL set forth herein or in any certificate, document or other instrument delivered pursuant to or in connection with this Agreement; or

(ii) any failure by TEL to fully perform, fulfill or comply with any covenant or agreement set forth herein or in any certificate, document or other instrument delivered pursuant to or in connection with this Agreement.

6.3 Indemnification Procedures.

(a) Unidym, on behalf of any member of the Unidym Group that is seeking indemnification under Section 6.2 hereof, or TEL, on behalf of any member of the TEL Group that is seeking indemnification under Section 6.2 hereof (each such Person of the Unidym Group and the TEL Group seeking indemnification, an "Indemnified Party") shall give prompt written notice (the "Notice of Claim") of any Loss in respect of which the Indemnified Party has a right to indemnity under Section 6.2 hereof, (A) in the case of a Notice of Claim by Unidym, to TEL or (B) in the case of a Notice of Claim by TEL, to Unidym (each such Person from whom indemnification is sought, the "Indemnifying Party"), and the Notice of Claim shall specify in reasonable detail the nature of the Loss for which indemnification is sought, the section or sections of this Agreement to which the Notice of Claim relates and the amount of the Loss involved (or, if not determinable,

a reasonable good faith estimate of the amount of the Loss involved); provided, however, that no delay or failure on the part of the Indemnified Party in notifying the Indemnifying Party shall relieve the Indemnifying Party of any liability or obligation hereunder, except to the extent that the Indemnifying Party clearly demonstrates that the defense of any third party suit, action or proceeding has been materially prejudiced by the Indemnified Party's failure to give such notice. Any Notice of Claim to be given by or to, as the case may be, any member of the Unidym Group under this Section 6.3 hereof shall be given by or to, as the case may be, Unidym. Any Notice of Claim to be given by or to, as the case may be, any member of the TEL Group under this Section 6.3 hereof shall be given by or to, as the case may be, TEL.

(b) If such Notice of Claim relates to any claim, suit, action, cause of action suit or proceeding by a third party, the Indemnifying Party may upon written notice given to the Indemnified Party within twenty (20) days of the receipt by the Indemnifying Party of such Notice of Claim, assume control of the defense of such action, suit or proceeding with counsel reasonably satisfactory to Indemnified Party. If the Indemnifying Party does not so assume control of such defense, the Indemnified Party shall have the right to control such defense. The party not controlling such defense may participate therein at its own expense.

(c) Neither the Indemnifying Party nor any Indemnified Party shall agree to any settlement of any claim, suit, action, cause of action suit or proceeding without the prior written consent of the other, which consent shall not be unreasonably withheld or delayed. For purposes hereof, a party's withholding of its consent to any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to all Persons who are members of the group represented by the Indemnified Party of a complete irrevocable release from all liability in respect to such claim or litigation or which requires action (or limits action) other than the payment of money that would be considered to be Losses under this Agreement shall be deemed to be reasonable.

ARTICLE VII

DEFINITIONS, CONSTRUCTION, ETC.

(a) Definitions. For purposes of this Agreement:

"Affiliate" shall mean, with respect to the Person to which it refers, a Person that directly or indirectly, through one or more intermediaries, controls, is controlled by or is under common control with, such Person.

"Agreement" shall have the meaning set forth in the Preamble.

"Agreement Date" shall have the meaning set forth in the Preamble.

"Business Day" shall mean any weekday of the year on which national banking institutions in the State of California are open to the public for conducting business and are not required to close.

"CCNI" means Continental Carbon Nanotechnologies, Inc.

"Closing" shall have the meaning set forth in Section 1.2.

"Closing Date" shall have the meaning set forth in Section 1.2.

"CNT" means custom opto-electronics grade carbon nanotubes used in producing CNT Products.

"CNT Fee" shall have the meaning set forth in Section 5.3(a).

"CNT Products" means CNT-based transparent conductive films, or inks used to create films, for application as transparent electrodes in liquid crystal displays and thin film solar cells.

"CNT Products IP" means all Intellectual Property held by Unidym that relates to the production of CNT Products from CNT, including without limitation, the patents and patent applications set forth in Schedule 7 attached hereto and the disclosures set forth in the CNT Products Materials.

"CNT Products License" shall have the meaning set forth in Section 2.1.

"CNT Products Materials" shall have the meaning set forth in Section 2.2.

"CNT Supply Agreement" means a preferred contract manufacturing agreement proposed to be entered into between Unidym and CCNI for the production and supply of CNT by CCNI to Unidym.

"Co-Owned Patents" shall have the meaning set forth in Section 1.6.

"Court" shall have the meaning set forth in Section 8.9(b).

"Equipment" means equipment designed for use by manufacturers of liquid crystal displays and/or designed for use by manufacturers of solar panels for the deposition of CNT or CNT Products on liquid crystal displays and solar panels, respectively, including for purposes of clarification, the fabrication of CNT or CNT Products on glass for use on solar panels.

"Equipment Related IP" means the Intellectual Property related to Equipment and the Equipment Process and described in Schedule 1.1 hereto.

"Equipment Process" means any method or process relating to the deposition, deposit or coating of CNT or CNT Products on any substrate materials used in the manufacturing or production of liquid crystal displays or solar panels (including, for purposes of clarification, any method or process to fabricate CNT or CNT Products on glass for use on solar panels).

"Fee Period" shall have the meaning set forth in Section 5.3(a).

"Governmental Entity" shall mean any court, administrative agency or commission or other federal, state, county, local or foreign governmental authority, instrumentality, agency or commission.

"Indemnified Party" shall have the meaning set forth in Section 6.3(a).

"Indemnifying Party" shall have the meaning set forth in Section 6.3(a).

"Inks/Films Business" means the business consisting of the manufacture, production and distribution of CNT Products for use in the LCD Field and the Solar Field.

"Inks Licensee" shall mean any third party licensee of the Intellectual Property of Unidym that, in connection with such license, receives any of Unidym's know how for making CNT Products.

"Intellectual Property" shall mean any or all of the following and all rights in, arising out of, or associated therewith: (i) all United States, international and foreign patents and applications therefore and all reissues, divisions, divisionals, renewals, extensions, provisionals, continuations and continuations-in-part thereof, and all patents, applications, documents and filings claiming priority to or serving as a basis for priority thereof; (ii) all inventions (whether or not patentable), invention disclosures, improvements, trade secrets, proprietary information, know-how, computer software programs (in both source code and object code form), technology, business methods, technical data and customer lists, tangible or intangible proprietary information, and all documentation relating to any of the foregoing; (iii) all copyrights, copyrights registrations and applications therefore, and all other rights corresponding thereto throughout the world; (iv) all industrial designs and any registrations and applications therefore throughout the world; (v) all trade names, logos, common law trademarks and service marks, trademark and service mark registrations and applications therefore throughout the world; (vi) all databases and data collections and all rights therein throughout the world; (vii) all moral and economic rights of authors and inventors, however denominated, throughout the world; (viii) all Web addresses, sites and domain names and numbers; and (ix) any similar or equivalent rights to any of the foregoing anywhere in the world.

"JDP" shall have the meaning set forth in Section 5.7.

"JDP Intellectual Property" shall have the meaning set forth in Section 5.7(b).

"Knowledge" (including any derivation thereof such as "Known" or "Knowing") shall mean, the actual (and not constructive or imputed) knowledge of (i) with respect to Unidym, any officers or directors, including John Miller and Mary-Beth Miller and (ii) with respect to TEL, the President and Vice President**.**

"LCD Field" means the field of nanotechnology using CNT Products for application as transparent electrodes in liquid crystal displays.

"License Agreements" means any license agreement between Unidym and any third party pursuant to which such third party's Intellectual Property rights are licensed to Unidym.

"Lien" shall mean any lien, pledge, mortgage, deed of trust, security interest, claim, lease, license, charge, option, right of first refusal, easement, restriction, reservation, servitude, proxy, voting trust or agreement, transfer restriction under any stockholder or similar agreement, or encumbrance of any nature whatsoever, and except for Liens for Taxes not yet due and payable

and such imperfections of title and encumbrances, if any, which are not material in character, amount or extent, and which do not materially detract from the value, or materially interfere with the present use of the property subject thereto or affected thereby.

"Loss" or "Losses" shall have the meaning set forth in Section 6.2(a).

"Net Sales of CNT Related Products" means all amounts received by: (1) Unidym, or any assignee or Affiliate thereof, from the sale of CNT Products for use in the LCD Field or the Solar Field; (2) Unidym, or any assignee or Affiliate thereof, from the sale of CNT if the CNT is not sold to an Inks Licensee and is used to make CNT Products for use in the LCD or the Solar Field; and (3) any Inks Licensee from the sale of CNT Products for use in the LCD Field or the Solar Field, net of any (a) discounts, refunds, credits, or returns and, (b) to the extent separately stated on purchase orders or other documents of sale, sales, consumption, VAT or other taxes and charges for delivery and insurance. For the avoidance of doubt, CCNI shall not be considered an assignee of Unidym for purposes of calculating Net Sales of CNT Related Products, unless and until Unidym receives, or obtains the right to receive, consideration from CCNI in exchange for Unidym enabling or otherwise permitting CCNI to sell CNT or CNT Products to a Person other than Unidym.

"Non-Commercial Rights" means the rights under the CNT Products License to use the CNT Products IP solely in connection with trials, tests and other related, non-commercial activities in the course of developing the Equipment and/or Equipment Process.

"Notice of Claim" shall have the meaning set forth in Section 6.3(a).

"Party" means either Unidym or TEL as the context requires, and "Parties" shall mean both Unidym and TEL.

"Person" shall mean any individual, corporation, partnership, limited liability company, firm, joint venture, association, joint-stock company, trust, unincorporated organization, Governmental Entity or other entity.

"Put A Right" shall mean the Put A Right as defined in Section 5.1 of the Subscription Agreement.

"Put B Right" shall mean the Put B Right as defined in Section 5.2 of the Subscription Agreement.

"Registered Intellectual Property" shall mean all United States, international and foreign: (i) patents and patent applications (including utility patents, business method patents, design patents, utility model patents, non-provisional patent applications, provisional patent applications, utility model patent applications, and design patent applications) and all reissues, divisions, divisionals, renewals, extensions, counterparts, continuations and continuations-in-part thereof, and all patents, applications, documents and filings claiming priority thereto or serving as a basis for priority thereof; (ii) registered trademarks, service marks, applications to register trademarks, applications to register service marks, intent-to-use applications, or other registrations or applications related to trademarks; (iii) registered copyrights and applications for copyright registration; (iv) domain name registrations and Internet number assignments; and

(v) any other Intellectual Property that is the subject of an application, certificate, filing, registration or other document issued, filed with, or recorded by any Governmental Entity.

"Release Event" shall have the meaning set forth in Section 2.3.

"Solar Field" means the field of nanotechnology using CNT Products for application as transparent electrodes in thin film solar cells.

"Subscription Agreement" shall have the meaning set forth in the Recitals.

"TEL" shall have the meaning set forth in the recitals.

"TEL Affiliate" shall mean TEL or an Affiliate of TEL, as the context requires.

"TEL Competitor" means any third party that either directly or through an Affiliate manufactures or sells equipment for the manufacture of semiconductors, solar panels and/or flat panel displays or that uses such third party's equipment.

"TEL Group" shall have the meaning set forth in Section 6.2(a).

"TEL JDP Partner" shall have the meaning set forth in Section 5.7.

"Transaction Agreements" shall have the meaning set forth in Section 3.2(a).

"Transactions" shall mean the transactions contemplated by this Agreement and the other Transaction Agreements to which the Unidym is or will be a party.

"Unidym" shall have the meaning set forth in the Preamble.

"Unidym Competitor" means any third party that either directly or through an Affiliate manufactures or sells CNT or CNT Products.

"Unidym Group" shall have the meaning set forth in Section 6.2(b).

(b) Construction.

(i) For purposes of this Agreement, whenever the context requires: the singular number shall include the plural, and vice versa; the masculine gender shall include the feminine and neuter genders; the feminine gender shall include the masculine and neuter genders; and the neuter gender shall include the masculine and feminine genders.

(ii) Any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not be applied in the construction or interpretation of this Agreement.

(iii) The words "include" and "including," and variations thereof, shall not be deemed to be terms of limitation, but rather shall be deemed to be followed by the words "without limitation."

(iv) Except as otherwise indicated, all references in this Agreement to "Sections," "Exhibits" and "Schedules" are intended to refer to Sections of this Agreement, and Exhibits and Schedules to this Agreement.

(v) The phrase "made available" or "provided to" as used in this Agreement in reference to the delivery of documents or copies of documents to a party shall mean the provision of documents in the Data Room.

ARTICLE VIII

GENERAL PROVISIONS

8.1 Notices. All notices and other communications under this Agreement shall be in writing and shall be deemed given if properly addressed: (i) if delivered personally, by commercial delivery service or by facsimile (with acknowledgment of a complete transmission), on the day of delivery; or (ii) if delivered by registered or certified mail (return receipt requested), three Business Days after mailing; or (iii) if delivered by first class mail, three Business Days after mailing. Notices shall be deemed to be properly addressed to any party hereto if addressed to the following addresses (or at such other address for a party as shall be specified by like notice):

(a) if to TEL, to:

TEL Venture Capital, Inc.
2953 Bunker Hill Lane, Suite 300
Santa Clara, CA 95054
Attention: Tetsuo Hirose
Phone: 408-566-4403
Facsimile: (408) 566-4410

(b) if to the Unidym, to:

Unidym, Inc.
1244 Reamwood Drive
Sunnyvale, CA
Attention: Mark Tilley
Phone: 650-462-1935
Facsimile: 650-462-1939

8.2 Entire Agreement. This Agreement, the Schedules and Exhibits hereto, and the documents and instruments and other agreements among the parties hereto referenced herein constitute the entire agreement among the parties with respect to the subject matter hereof and supersede all prior written and oral agreements and understandings, and all contemporaneous oral agreements and understandings, among the parties with respect to the subject matter hereof.

8.3 Severability. In the event that any provision of this Agreement or the application thereof becomes or is declared by a court of competent jurisdiction to be illegal, void or unenforceable, the remainder of this Agreement will continue in full force and effect and the

application of such provision to other Persons or circumstances will be interpreted so as reasonably to effect the intent of the parties hereto. The parties further agree to replace such void or unenforceable provision of this Agreement with a valid and enforceable provision that will achieve, to the greatest extent possible, the economic, business and other purposes of such void or unenforceable provision.

8.4 Specific Performance. The parties hereto agree that irreparable damage would occur in the event that any of the provisions of this Agreement were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that the parties shall be entitled to an injunction or injunctions to prevent breaches of this Agreement and to enforce specifically the terms and provisions hereof in any court of the United States or any state having jurisdiction, this being in addition to any other remedy to which they are entitled at Law or in equity.

8.5 Disclosure Schedule. No matter disclosed in one section of the Unidym Disclosure Schedule, shall be deemed disclosed in another section of the Unidym Disclosure Schedule, unless it is reasonably apparent on the face of the disclosure that the matter is responsive to another representation. Disclosure of a matter in a section of the Unidym Disclosure Schedule shall not affect (directly or indirectly) the interpretation of this Agreement or the scope of the disclosure obligation of Unidym under this Agreement.

8.6 Fees and Expenses. All fees and expenses incurred in connection with this Agreement including, without limitation, all expenses incurred by a party in connection with the negotiation and effectuation of the terms and conditions of this Agreement and the Transactions contemplated hereby shall be the obligation of the party incurring such fees and expenses.

8.7 Successors and Assigns; Parties in Interest.

(a) This Agreement shall inure to the benefit of the parties hereto and the respective successors and assigns (if any) of the foregoing.

(b) No party may assign any of its rights or delegate any of its obligations under this Agreement without the prior written consent of TEL.

(c) Nothing in this Agreement, express or implied, is intended to or shall confer upon any Person other than the parties any rights, interests, benefits or other remedies of any nature under or by reason of this Agreement.

8.8 Waiver. No failure on the part of any Person to exercise any power, right, privilege or remedy under this Agreement, and no delay on the part of any Person in exercising any power, right, privilege or remedy under this Agreement, shall operate as a waiver of such power, right, privilege or remedy; and no single or partial exercise of any such power, right privilege or remedy shall preclude any other or further exercise thereof or of any other power, right, privilege or remedy.

8.9 Governing Law; Venue.

(a) This Agreement shall be construed in accordance with, and governed in all respects by, the internal laws of the State of California, without regard to the principles of conflict of laws.

(b) Unless otherwise explicitly provided in this Agreement, any action, claim, suit or proceeding relating to this Agreement or the enforcement of any provision of this Agreement shall be brought or otherwise commenced in any state or federal court located in the State of California (each, a "Court"). Each Party hereto (i) expressly and irrevocably consents and submits to the exclusive jurisdiction of each Court, and each appellate court located in the State of California, in connection with any such proceeding; (ii) agrees that each Court shall be deemed to be a convenient forum; (iii) agrees that service of process in any such proceeding may be made by giving notice pursuant to Section 8.1; and (iv) agrees not to assert, by way of motion, as a defense or otherwise, in any such proceeding commenced in any Court, any claim that such party is not subject personally to the jurisdiction of such Court, that such proceeding has been brought in an inconvenient forum, that the venue of such proceeding is improper or that this Agreement or the subject matter of this Agreement may not be enforced in or by such Court.

(c) Notwithstanding the foregoing, any dispute between the Parties with regard to whether or not a Release Event has occurred, as described in Section 2.3 hereof, shall be submitted for expedited binding arbitration in the County of Santa Clara in the State of California under Commercial Arbitration Rules of the American Arbitration Association by one arbitrator appointed by the said rules. The decision of the arbitrator shall be final and binding upon the parties and enforceable in any court of competent jurisdiction and a copy of such decision shall be delivered immediately to Unidym and TEL. The sole question to be determined by the arbitrator shall be whether or not a Release Event has occurred. The Parties hereby agree that the costs and expenses of the arbitrator shall be paid by the non-prevailing party in the arbitration, but each Party shall pay the costs and expenses of their own attorneys.

8.10 Waiver of Jury Trial. EACH PARTY ACKNOWLEDGES AND AGREES THAT ANY CONTROVERSY THAT MAY ARISE UNDER THE TRANSACTION AGREEMENT IS LIKELY TO INVOLVE COMPLICATED AND DIFFICULT ISSUES, AND THEREFORE IT HEREBY IRREVOCABLY AND UNCONDITIONALLY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THE TRANSACTION AGREEMENTS OR THE TRANSACTIONS CONTEMPLATED THEREBY.

8.11 Other Remedies. Except as otherwise expressly provided herein, any and all remedies herein expressly conferred upon a party will be deemed cumulative with and not exclusive of any other remedy conferred hereby, or by law or equity upon such party, and the exercise by a party of any one remedy will not preclude the exercise of any other remedy.

8.12 Counterparts; Facsimile Delivery. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall

constitute one and the same instrument. Any signature page delivered by facsimile or electronic image transmission shall be binding to the same extent as an original signature page. Any party that delivers a signature page by facsimile or electronic image transmission shall deliver an original counterpart to any other party that requests such original counterpart.

8.13 Time of the Essence. Time is of the essence of this Agreement.

8.14 Further Assurances. In addition to the obligations required to be performed under this Agreement by Unidym and TEL, Unidym and TEL shall perform, on the Closing Date or from time to time thereafter, such other acts, and shall execute, acknowledge and/or deliver such other instruments, documents and other materials, as may be reasonably required in order to consummate the Transactions described in this Agreement.

IN WITNESS WHEREOF, each of the parties to this Agreement has executed and delivered this Agreement, or caused this Agreement to be executed and delivered by its duly authorized representative, as of the Agreement Date.

UNIDYM, INC.

By: /s/ Mark Tilley
Name: Mark Tilley
Its: Chief Executive Officer

TEL VENTURE CAPITAL, INC.

By: /s/ Mike Yamaguchi
Name: Mike Yamaguchi
Its: President

Exhibit 10.5

UNIDYM, INC.

SUBSCRIPTION AGREEMENT

SERIES C-1 PREFERRED STOCK

SUBSCRIPTION AGREEMENT

THIS SUBSCRIPTION AGREEMENT (this "***Agreement***") is made as of the last date indicated on the signature pages hereto between Unidym, Inc., a Delaware corporation (the "***Company***"), and the undersigned investor party hereto ("***Investor***").

RECITALS

WHEREAS, the Company wishes to sell up to an aggregate of 1,416,666 additional shares of the Company's Series C-1 Preferred Stock ("***Shares***") to the Investor, at a purchase price of $1.80 per Share, and the Investor wishes to purchase Shares from the Company.

NOW, THEREFORE, in consideration of the mutual covenants, agreements and conditions, and upon acknowledgement of each of the parties of the receipt of valuable consideration, the parties herein agree as follows:

1. Purchase and Sale of Shares.

1.1 The Closing. At the Closing (as defined below), the Company shall issue and sell to Investor such number of Shares as is set forth immediately below Investor's name on the signature pages hereto against delivery to the Company by Investor of an amount equal to $1.80 times the number of Shares to be purchased by the Investor (the "***Purchase Price***"), paid by (a) cash (by check or wire transfer) in United States Dollars to the Company to be held in escrow until the Closing, for release to the Company thereafter or (b) cancellation of indebtedness of the Company to Investor. Promptly after the Closing, the Company shall deliver to Investor a duly executed certificate representing the Shares which Investor is purchasing hereunder. The purchase and sale transaction contemplated hereby will close on the first business day immediately following the satisfaction of the Closing conditions set forth herein, which is targeted to be no later than 5:00 p.m., Pacific Time on , 2009, as such date and time may be modified by the Company in its sole discretion (such day, the "***Closing***").

1.2 Additional Closing(s).

(a) Conditions of Additional Closing(s). At any time and from time to time following the Closing, the Company may, at one or more additional closings (each an "***Additional Closing***"), without obtaining the signature, consent or permission of Investor, offer and sell to other investors (the "***New Investors***"), at a price of $1.80 per Share, up to that number of Shares that is equal to 1,416,666 Shares less the number of Shares previously issued and sold by the Company. New Investors may include persons or entities who are already owners of shares of the Company's Series C-1 Preferred Stock or other capital stock.

(b) Amendments. The Company and the New Investors purchasing Shares at each Additional Closing will execute a Subscription Agreement in substantially the same form hereof, and the New Investors will, to the extent not already a party thereto, execute counterpart signature pages to: (i) the Amended and Restated Investors' Rights Agreement in the form attached to this Agreement as Exhibit A, as amended (the "***Investors' Rights Agreement***"), (ii) the Amended and Restated Right of First Refusal and Co-Sale Agreement in the form attached to this Agreement as Exhibit B, as amended (the "***ROFR Agreement***"), and (iii) the Amended and Restated Voting Agreement in the form attached to this Agreement as Exhibit C, as amended (the "***Voting Agreement***") (the Investors' Rights Agreement, ROFR Agreement and Voting Agreement, as such agreements may be amended, collectively, the "***Related Agreements***"). Such New Investors will, upon delivery to the Company of such signature pages, become parties to, and bound by, the Related Agreements, each to the same extent as if they had been an Investor at the time of issuance of the first share of Series C-1 Preferred Stock.

(c) Status of New Investors. Upon the completion of each Additional Closing as provided in this Section 1.2, each New Investor will be deemed to be an "Investor" for all purposes of the Related Agreements.

2. Representations and Warranties of the Company. The Company hereby represents and warrants to Investor, that the statements in the following paragraphs of this Section 2 are all true and complete as of the date hereof:

2.1 Organization, Good Standing and Qualification. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware. The Company is duly qualified to transact business and is in good standing in each jurisdiction in which the failure to so qualify would reasonably be expected to have a material adverse effect on (a) the present or future business, assets, or operations, of the Company, taken as a whole or (b) the Company's ability to perform this Agreement or the Related Agreements (as defined below) (a "***Material Adverse Effect***").

2.2 Capitalization and Voting Rights.

(a) Authorized Stock. There are authorized for issuance 50,000,000 shares of common stock, par value $0.0001 (the "***Common Stock***") and 22,506,585 shares of preferred stock, par value $0.0001 (the "***Preferred Stock***"), of which 5,000,000 shares are designated as Series A Convertible Preferred Stock ("***Series A Preferred Stock***"), 5,673,252 shares are designated as Series B Senior Convertible Preferred Stock ("***Series B Preferred Stock***"), 8,500,000 shares are designated as Series C Senior Convertible Preferred Stock ("***Series C Preferred Stock***"), and 3,333,333 shares are designated as Series C-1 Preferred Stock ("***Series C-1 Preferred Stock***"). Immediately prior to the Closing, the outstanding stock of the Company consists of the following:

(i) Common Stock. Three Million Seven Hundred Eighty Thousand One Hundred (3,780,100) shares of issued and outstanding Common Stock.

(ii) Series A Preferred Stock. Five Million (5,000,000) shares of issued and outstanding Series A Preferred Stock, which shares of Series A Preferred Stock are convertible into 1.680096462 shares of Common Stock upon (x) an involuntary or voluntary liquidation, dissolution and winding up of the Company, (y) a Deemed Liquidation Event (as such term is defined in the Restated Certificate (as defined below)) or (z) a Qualified IPO (as such term is defined in the Restated Certificate).

(iii) Series B Preferred Stock. Five Million Six Hundred Seventy Three Thousand Two Hundred Fifty-Two (5,673,252) shares of issued and outstanding Series B Preferred Stock, which shares of Series B Preferred Stock are convertible into 1.000042304 shares of Common Stock.

(iv) Series C Preferred Stock. Eight Million One Hundred Twenty Five Thousand Eight Hundred Eighty-Nine (8,125,889) shares of issued and outstanding Series C Preferred Stock.

(v) Series C-1 Preferred Stock. One Million Nine Hundred Sixteen Thousand Six Hundred Sixty-Seven (1,986,112) shares of issued and outstanding Series C-1 Preferred Stock.

Upon the Closing, the rights, preferences and privileges of each series of Preferred Stock will be as stated in the Restated Certificate and as provided by law.

(b) Valid Issuance. The outstanding shares of Common Stock and Preferred Stock are all duly and validly authorized and issued, fully paid and nonassessable.

(c) Rights to Acquire. Except for (i) the conversion privileges of the Preferred Stock, (ii) the rights of first refusal provided in Section 4 of the Investors' Rights Agreement, (iii) the Five Million (5,000,000) shares of Common Stock reserved for issuance to employees, consultants and/or directors pursuant to the Company's 2006 Stock Option/Stock Issuance Plan (the "*Option Plan*"), of which options to purchase an aggregate of Three Million Eight Hundred Seven Thousand Two Hundred Two (3,807,202) shares of Common Stock are currently outstanding, (iv) outstanding warrants to purchase Three Million Five Hundred Ten Thousand Two Hundred Eight (3,510,208) shares of Common Stock and (vi) outstanding restricted stock units for the issuance of One Million One Hundred Four Thousand Ten (1,104,010) shares of Common Stock, and (v) the Company's obligation to purchase 277,779 shares of Series C-1 Preferred Stock from TEL Venture Capital Inc. ("TEL") in the event certain conditions are not met and TEL requests that Unidym purchases the 277,779 shares, there are not outstanding any options, warrants, rights (including conversion or preemptive rights) or agreements for the purchase or acquisition from the Company of any shares of its capital stock.

(d) Voting of Shares. Other than the Voting Agreement, the Company is not a party or subject to any agreement or understanding and, to the Company's knowledge, there is no agreement or understanding between any persons and/or entities which affects or relates to the voting or giving of written consents with respect to any security or by a director of the Company.

(e) Market Stand-Off. To the Company's best knowledge, all outstanding shares of preferred stock of the Company and all capital stock of the Company issuable upon the exercise of outstanding employee incentive stock options are subject to a one hundred eighty (180) day "market stand-off" restriction upon an initial public offering by the Company resulting in at least $20 Million in gross proceeds pursuant to a registration statement filed with the Securities and Exchange Commission ("***SEC***") pursuant to the Securities Act of 1933, as amended (the "***Act***").

2.3 Subsidiaries. Except for (i) the minority ownership position in Nexeon MedSystems pursuant to the license agreement with Nanotech Catheter Solutions, and (ii) the 100% ownership position in Nanoconduction, Inc., the Company does not presently own or control, directly or indirectly, any interest in any other corporation, association, or other business entity. The Company is not a participant in any joint venture, partnership, or similar arrangement.

2.4 Authorization. All corporate action on the part of the Company, its officers, directors and stockholders necessary for the authorization, execution and delivery of this Agreement, the Related Agreements, the performance of all obligations of the Company hereunder and thereunder, and the authorization, sale and issuance of the Shares being sold hereunder, and the Common Stock issuable upon conversion of the Shares, has been taken or will be taken prior to the Closing. As of the Closing, this Agreement and the Related Agreements constitute valid and legally binding obligations of the Company, enforceable in accordance with their respective terms, except (i) as limited by applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies, and (iii) to the extent the indemnification provisions contained in the Related Agreements may be limited by applicable federal or state securities laws.

2.5 Valid Issuance of Preferred and Common Stock. The Shares that are being purchased by Investor hereunder, when issued, sold and delivered in accordance with the terms of this Agreement for the consideration expressed herein, will be duly and validly issued, fully paid and nonassessable and will be free of restrictions on transfer, other than restrictions on transfer, if any, (i) under this Agreement, the Investor's Rights Agreement and the ROFR Agreement, (ii) under applicable state and

federal securities laws and (iii) otherwise imposed as a result of actions taken by Investor. The Common Stock issuable upon conversion of the Shares purchased under this Agreement has been duly and validly reserved for issuance and, upon issuance in accordance with the terms of the Company's Fourth Amended and Restated Certificate of Incorporation in the form attached hereto as Exhibit D-1 (the "***Restated Certificate***"), will be duly and validly issued, fully paid and nonassessable and will be free of restrictions on transfer, other than restrictions on transfer, if any (i) under this Agreement, the Investor's Rights Agreement and the ROFR Agreement, (ii) under applicable state and federal securities laws and (iii) otherwise imposed as a result of actions taken by Investor.

2.6 Governmental Consents. No consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any federal, state or local governmental authority on the part of the Company is required in connection with the consummation of the transactions contemplated by this Agreement and the Related Agreements, except for such consents, approvals, orders, authorizations, registrations, qualifications, designations, declarations or filings which are not required to be obtained prior to the Closing, and such filings as are required pursuant to applicable federal and state securities laws and blue sky laws, which filings will be effected within the required statutory period.

2.7 Offering. Subject in part to the truth and accuracy of Investor's representations set forth in Section 3 of this Agreement, the offer, sale and issuance of the Shares as contemplated by this Agreement are exempt from the registration requirements of the Act, and the qualification or registration requirements of applicable state blue sky laws, as such registration requirements and laws currently exist.

2.8 Litigation. There is no action, suit, proceeding or investigation pending or, to the Company's knowledge, currently threatened in writing against the Company that questions the validity of this Agreement or the Related Agreements, or the right of the Company to enter into such agreements or to consummate the transactions contemplated hereby and thereby, or that would reasonably be expected to result in a Material Adverse Effect. The Company is not a party or subject to the provisions of any order, writ, injunction, judgment or decree of any court or government agency or instrumentality. There is no action, suit, proceeding or investigation by the Company currently pending or that the Company currently intends to initiate.

2.9 Proprietary Information Agreements. Each current employee of the Company has executed a Proprietary Information and Inventions Agreement in substantially the form provided to Investor upon request by Investor. The Company is not aware that any such employee is in violation thereof.

2.10 Compliance with Other Instruments. The Company is not in violation of any provision of its Restated Certificate or Bylaws nor, to its knowledge, of any instrument, judgment, order, writ, decree or contract, statute, rule or regulation to which the Company is subject and a violation of which would reasonably be expected to have a Material Adverse Effect. The execution, delivery and performance of this Agreement and the Related Agreements, and the consummation of the transactions contemplated hereby and thereby will not result in any such violation, or be in conflict with or constitute, with or without the passage of time and giving of notice, either a default under any such provision or an event that results in the creation of any lien, charge or encumbrance upon any assets of the Company or the suspension, revocation, impairment, forfeiture or nonrenewal of any material permit, license, authorization or approval applicable to the Company, its business or operations or any of its assets or properties.

2.11 Agreements; Action. Except for agreements explicitly contemplated hereby, there are no agreements or understandings between the Company and any of its officers, directors, affiliates or any affiliate thereof (except for quarterly allocations for services performed by Arrowhead) and except as set forth on Schedule 2.11,

(a) there are no agreements, understandings, instruments, contracts, judgments, orders, writs or decrees to which the Company is a party or by which it is bound that may involve (i) obligations (contingent or otherwise) of, or payments to the Company, in excess of $10,000, other than obligations of, or payments to, the Company arising from purchase or sale agreements entered into in the ordinary course of business, or (ii) provisions materially restricting the development, manufacture or distribution of the Company's products or services, and

(b) The Company has not (i) declared or paid any dividends or authorized or made any distribution upon or with respect to any class or series of its capital stock, (ii) made any loans or advances to any person, other than ordinary advances for travel expenses, or (iii) sold, exchanged or otherwise disposed of any of its assets or rights.

(c) For the purposes of subsections (a) and (b) above, all indebtedness, liabilities, agreements, understandings, instruments and contracts involving the same person or entity (including persons or entities the Company has reason to believe are affiliated therewith) shall be aggregated for the purpose of meeting the individual minimum dollar amounts of such subsections.

2.12 Related-Party Transactions. No employee, officer or director of the Company or member of his or her immediate family is indebted to the Company, nor is the Company indebted (or committed to make loans or extend or guarantee credit) to any of them. To the best of the Company's knowledge, other than in Arrowhead Research Corporation, a Delaware corporation ("***Arrowhead***") or in any of Arrowhead's subsidiaries, none of such persons has any direct or indirect ownership interest in any firm or corporation with which the Company is affiliated or with which the Company has a business relationship, or any firm or corporation that competes with the Company, except that employees, officers or directors of the Company and members of their immediate families may own stock in publicly traded companies that may compete with the Company. No member of the immediate family of any officer or director of the Company is directly or indirectly interested in any material contract with the Company.

2.13 No Undisclosed Liabilities. Except as set forth in the Financial Statements (as defined in Section 2.25), the Company does not have any liabilities (whether accrued, absolute, unliquidated, contingent or otherwise, whether or not known to the Company, whether due or to become due and regardless of when asserted) arising out of transactions entered into at or prior to the Closing, or any action or inaction at or prior to the Closing or any state of facts existing at or prior to the Closing other than (i) liabilities and obligations that have arisen after March 31, 2009 in the ordinary course of business (none of which is material and none of which is a liability resulting from breach of contract, breach of warranty, tort, infringement, claim or lawsuit), or (ii) obligations under contracts and commitments incurred in the ordinary course of business that would not be required to be reflected in financial statements prepared in accordance with generally accepted accounting principles. The Company is not a guarantor or indemnitor of any indebtedness of any other person, firm or corporation.

2.14 Permits. The Company has all franchises, permits, licenses and any similar authority necessary for the conduct of its business as now being conducted by it, except to the extent the lack of which would not reasonably be expected to have a Material Adversely Effect. The Company is not in default under any of such franchises, permits, licenses or other similar authority which would be reasonably expected to have a Material Adverse Effect.

2.15 Environmental and Safety Laws.

(a) Except as set forth in Section 2.14(b), to its knowledge, the Company is not in violation of any applicable statute, law or regulation relating to the environment or occupational health and safety, and, to its knowledge, no material expenditures are or will be required in order to comply with any such existing statute, law or regulation.

(b) The US Environmental Protection Agency (the "***EPA***") has issued recent guidance regarding the classification of carbon nanotubes under the Toxic Substances Control Act. The EPA has stated that it now considers carbon nanotubes to be "new chemicals" rather than materials previously listed on the TSCA Inventory, such as synthetic graphite or other carbon compounds. The Company is in the process of reviewing its compliance with this guidance and has filed paperwork with the EPA. Accordingly, the Company withholds any representation or warranty regarding the matters disclosed in this Section 2.14(b), including its compliance with the new EPA guidance.

2.16 Disclosure. The Company has fully provided Investor with all the information that Investor has requested in writing for deciding whether to purchase the Shares. Neither this Agreement (including all the exhibits and schedules hereto) nor any other statements or certificates made or delivered in connection herewith contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements herein or therein not misleading in light of the circumstances under which they were made.

2.17 Registration Rights. Except as provided in the Investors' Rights Agreement, the Company has not granted or agreed to grant any registration rights, including piggyback rights, to any person or entity.

2.18 Title to Property and Assets. The property and assets used by the Company in its business are owned by the Company free and clear of all mortgages, liens, loans and encumbrances, except for (i) statutory liens for the payment of current taxes that are not yet delinquent and (ii) for liens, encumbrances and security interests that arise in the ordinary course of business and/or pursuant to applicable law, and minor defects in title, none of which, individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect. With respect to the property and assets it leases, the Company is in compliance with such leases and, to its knowledge, holds a valid leasehold interest free of any liens, claims or encumbrances, subject to clauses (i)-(ii) of the foregoing sentence, except to the extent the failure to be in compliance or hold a valid leasehold interest would not reasonably be expected to have a Material Adverse Effect.

2.19 Labor Agreements and Actions. The Company is not bound by or subject to any contract, commitment or arrangement with any labor union, and no labor union has requested or, to the Company's knowledge, has sought to represent any of the employees, representatives or agents of the Company. There is no strike or other labor dispute involving the Company pending, or to the Company's knowledge, threatened in writing, that would reasonably be expected to have a Material Adverse Effect, nor is the Company aware of any labor organization activity involving its employees. The Company is not aware that any officer or key employee, or that any group of key employees, intends to terminate their employment with the Company, nor does the Company have a present intention to terminate the employment of any of the foregoing. The employment of each officer and employee of the Company is terminable at the will of the Company. The Company is not a party to or bound by any currently effective employment contract, deferred compensation agreement, bonus plan, incentive plan, profit sharing plan, retirement agreement or other employee compensation agreement**.** To its knowledge, the Company has complied in all material respects with all applicable state and federal equal employment opportunity and other laws related to employment.

2.20 Brokers Fees. The Company expects to pay third-party finders or advisors finder's fees (in cash and/or equity) for Shares placed by such third party. For the sake of clarity, no finder's fees will be paid for Shares not placed by a third-party finder or advisor.

2.21 Intellectual Property. To its knowledge, the Company has rights to all patents, patent applications, trademarks, service marks, trade names, copyrights, trade secrets, licenses, inventions, information and proprietary rights and processes (collectively, "***Intellectual Property***") it needs to operate its business as currently conducted, other than Intellectual Property that it reasonably believes is invalid or it can obtain rights to through a license or cross-licensing arrangement. The Company has not received any communications alleging that the Company has violated or, by conducting its business as presently proposed, would violate any of the Intellectual Property of any other person or entity. The Company is not aware that any of its employees is obligated under any contract (including licenses, covenants or commitments of any nature) or other agreement, or subject to any judgment, decree or order of any court or administrative agency, that would interfere with the use of his or her best efforts to promote the interests of the Company or that would conflict with the Company's business as presently proposed to be conducted. Neither the execution nor delivery of this Agreement, nor the carrying on of the Company's business by the employees of the Company, nor the conduct of the Company's business as presently proposed, will, to the Company's knowledge, conflict with or result in a breach of the terms, conditions or provisions of, or constitute a default under, any contract, covenant or instrument under which any of such employees is now obligated. The Company does not believe it is or will be necessary to utilize any inventions of any of its employees (or people it currently intends to hire) made prior to their employment by the Company.

2.22 Tax Returns and Payments. There are no federal, state, county, local or foreign taxes dues and payable by the Company which have not been timely paid. There are no accrued and unpaid federal, state, country, local or foreign taxes of the Company which are due, whether or not assessed or disputed. There have been no examinations or audits of any tax returns or reports by any applicable federal, state, local or foreign governmental agency. The Company has duly and timely filed all federal, state, county, local and foreign tax returns required to have been filed by it and there are in effect no waivers of applicable statutes of limitations with respect to taxes for any year.

2.23 Insurance. The Company has in full force and effect fire and casualty insurance policies with extended coverage, sufficient in amount (subject to reasonable deductions) to allow it to replace any of its properties that might be damaged or destroyed.

2.24 ERISA. The Company has made all required contributions and has no liability to any such employee benefit plan, other than liability for health plan continuation coverage described in Part 6 of Title I(B) of Employee Retirement Income Security Act of 1974, as amended, and has complied in all material respects with all applicable laws for any such employee benefit plan.

2.25 Financial Statements. Attached hereto in Schedule 2.25 is the Company's unaudited financial statements (balance sheet, income statement and statement of cash flows) dated March 31, 2008 ("***Financial Statements***"). The Financial Statements have been prepared in accordance with U.S. generally accepted accounting principles applied on a consistent basis throughout the periods indicated and with each other. The Financial Statements are true, correct and complete and fairly present the financial condition and operating results of the Company as of the dates, and for the periods, indicated therein, subject to normal year-end audit adjustments.

2.26 Changes. Since March 31, 2009, and at all times up to the Closing, there have not been:

a. any material change in the assets, liabilities, financial condition or operating results of the Company from that reflected in the Financial Statements, except (i) the sale by the Company of certain assets, including equipment, inventory and intellectual property rights pursuant to a Asset purchase Agreement, dated as of May 1, 2009, between the

Company and Continental Carbon Nanotechnologies, and (ii) changes in the ordinary course of business that have not been, in the aggregate, materially adverse;

b. any damage, destruction or loss, whether or not covered by insurance, materially and adversely affecting the assets, properties, financial condition, operating results, prospects or business of the Company (as such business is presently conducted and as it is proposed to be conducted);

c. any material change or amendment to a material contract or arrangement by which the Company or any of its assets or properties is bound or subject;

d. any declaration, setting aside or payment or other distribution in respect of any of the Company's capital stock, or any direct or indirect redemption, purchase or other acquisition of any of such stock by the Company;

e. any sale, assignment or transfer of any patents, trademarks, copyrights, trade secrets or other intangible assets, except the sale by the Company of certain assets, including equipment, inventory and intellectual property rights pursuant to a Asset purchase Agreement, dated as of May 1, 2009, between the Company and Continental Carbon Nanotechnologies;

f. to the Company's knowledge, any other event or condition of any character that might materially and adversely affect the assets, properties, financial condition, operating results or business of the Company (as such business is presently conducted and as it is proposed to be conducted); or

g. any agreement or commitment by the Company to do any of the things described in this Section 2.26.

3. Representations and Warranties of Investor. Investor hereby represents, warrants and covenants to the Company that:

3.1 Authorization. Investor has full power and authority to enter into this Agreement and the Related Agreements to which it is a party, and each such agreement constitutes its valid and legally binding obligation, enforceable in accordance with its terms except (i) as limited by applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies, and (iii) to the extent the indemnification provisions contained in the Related Agreements may be limited by applicable federal or state securities laws.

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

3.3 Disclosure of Information. Investor believes it has received all the information it considers necessary or appropriate for deciding whether to purchase the Shares. Investor further represents that it has had an opportunity to ask questions and receive answers from the Company

regarding the terms and conditions of the offering of the Shares and the business, properties, prospects and financial condition of the Company. The foregoing, however, does not limit or modify the representations and warranties of the Company in Section 2 of this Agreement or the right of Investor to rely thereon.

3.4 Investment Experience. Investor is an investor in securities of companies in the development stage and acknowledges that he/she/it is able to bear the economic risk of its investment, and has such knowledge and experience in financial or business matters that it is capable of evaluating the merits and risks of the investment in the Shares. If other than an individual, Investor also represents it has not been organized for the purpose of acquiring the Shares.

3.5 Accredited Investor. Investor is an "accredited investor" within the meaning of SEC Rule 501 of Regulation D. All of the information in the Investor Questionnaire delivered by Investor to the Company in connection with Investor's purchase of the Shares remains complete, true and correct as of the Closing or the Additional Closing, as applicable.

3.6 Restricted Securities. Investor understands that the Shares it is purchasing are characterized as "restricted securities" under the federal securities laws inasmuch as they are being acquired from the Company in a transaction not involving a public offering, and that under such laws and applicable regulations, such Shares may be resold without registration under the Act only in certain limited circumstances. In the absence of an effective registration statement covering the Shares or an available exemption from registration under the Act, the Shares (and any Common Stock issued on conversion of the Shares) must be held indefinitely.

3.7 No Brokers. Investor has not taken any action which would give rise to any claim by any person for brokerage commissions, finder's fees or similar payments relating to this Agreement or the transactions contemplated hereby.

3.8 Legends. It is understood that the certificates evidencing the Shares may bear one or all of the following legends:

(a) "These securities have not been registered under the Securities Act of 1933, as amended. They may not be sold, offered for sale, pledged or hypothecated in the absence of a registration statement in effect with respect to the securities under such Act or an opinion of counsel satisfactory to the Company that such registration is not required or unless sold pursuant to Rule 144 of such Act."

(b) Legends required to indicate that the Shares are subject to the terms of the Investors Rights Agreement and ROFR Agreement.

(c) Any legend required by applicable laws.

4. Optional Conversion of the Shares.

4.1 Optional Conversion. Investor shall have the right, by giving notice thereof to the Company pursuant to this Section 4, to convert all (but not less than all) of the outstanding Shares held by the Investor (and purchased under this Agreement) into shares of the Company's Qualified Stock (as defined below), pursuant to the provisions of this Section 4 concurrently with the closing of a Qualified Transaction (as defined below)(or the first closing in a series of closings).

4.2 Qualified Transaction. A "***Qualified Transaction***" shall mean the Company's receipt of at least $2,500,000 in proceeds from: (i) a sale by the Company, in one or more related transactions, of a new series of preferred stock (the "***Qualified Stock***") in a financing event (the "***Qualified***

Financing"); or (ii) a combination of (a) a sale of Qualified Stock as described in Section 4.2(i), and (b) the sale by the Company of some or all of its assets and/or business operations in materials for anti-static polymers.

4.3 Notice. The Company shall provide the Investor with a notice no later than 15 business days prior to the closing of the Qualified Transaction indicating the proposed closing date, together with the terms and conditions of the Qualified Transactions, the rights, preferences and privileges of the Qualified Stock and the conversion calculation determined in accordance with Section 4.4 below. Each Investor shall have the right to exercise its rights to convert its Shares into the Qualified Stock under Section 4.1 by giving notice thereof to the Company no later than 5 business days prior to the proposed closing date.

4.4 Conversion Calculation. In connection with a Qualified Transaction, the Shares shall be converted into Qualified Stock in accordance with the following formula:

A = B * [(C ÷ D) * E]

A = the number of shares of Qualified Stock issuable to Investor in connection with the Qualified Transaction;

B = the number of Shares purchased by Investor pursuant to this Agreement;

C = $1.80;

D = the price per share at which the Qualified Stock is sold to investors in the Qualified Financing; and

E = 1.10.

For the avoidance of doubt, the calculation in this Section 4.3 shall be performed in the following order: (i) divide C by D, (ii) multiply the amount in (i) by E, and (iii) multiply the amount in (ii) by B.

4.5 Deliverables. Upon any conversion of Shares under this Section 4, the Investor will execute and deliver to the Company, at the closing of such Qualified Financing, such stock purchase agreement, investors' rights agreement, co-sale agreement, voting and/or other agreements as are entered into by the investors in the Qualified Financing generally. The Company shall not be obligated to issue certificates evidencing the shares of Qualified Stock issuable upon conversion unless the certificates evidencing the Shares are either delivered to the Company or its transfer agent, or the Investor notifies the Company or its transfer agent that such certificates have been lost, stolen or destroyed and executes an agreement satisfactory to the Company to indemnify the Company from any loss incurred by it in connection with such certificates. Upon the occurrence of such conversion of the Shares, the Investor shall surrender the certificates representing such Shares at the office of the Company or any transfer agent for the Company's capital stock. Thereupon, there shall be issued and delivered to the Investor promptly at such office and in its name as shown on such surrendered certificate or certificates, a certificate or certificates for the number of shares of Qualified Stock into which the Shares surrendered were convertible on the date on which such automatic conversion occurred.

5. Conditions to Investor's Obligations at Closing. The following conditions must be satisfied by the Company, unless waived by Investor, in Investor's sole and absolute discretion.

5.1 Representations and Warranties. The representations and warranties of the Company contained in Section 2 shall be true on and as of the Closing with the same effect as though such representations and warranties had been made on and as of the date of the Closing.

5.2 Performance. The Company shall have performed and complied with all agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by it on or before the Closing.

5.3 Qualifications. All authorizations, approvals or permits, if any, of any governmental authority or regulatory body of the United States or of any state that are required in connection with the lawful issuance and sale of the Shares pursuant to this Agreement shall be duly obtained and effective, other than such authorizations, approvals or permits or other filings which may be timely made after such issuance and sale of the Shares.

5.4 Amendment to Restated Certificate. The Company shall have filed the Certificate of Amendment of Restated Certificate in the form attached hereto as Exhibit D-2 with the Delaware Secretary of State.

5.5 Proceedings and Documents. All corporate and other proceedings in connection with the transactions contemplated at the Closing and all documents incident thereto shall be reasonably satisfactory in form and substance to Investor, and Investor shall have received all such counterpart original and certified or other copies of such documents as may be reasonably requested.

5.6 General. The holders of Common Stock and/or Preferred Stock shall have amended any other agreement or arrangement, or given any further consent required to allow the Company to execute and perform this Agreement and the Related Agreements.

6. Conditions to the Company's Obligations at Closing. The following conditions must be satisfied by Investor, unless waived in writing by the Company, in the Company's sole and absolute discretion.

6.1 Representations and Warranties. The representations and warranties of the Investor contained in Section 3 shall be true on and as of the Closing or the Additional Closing (as applicable) with the same effect as though such representations and warranties had been made on and as of the date of such closing.

6.2 Payment of the Purchase Price. Investor shall have delivered to the Company the purchase price for the Shares.

6.3 Securities Exemptions. The offer and sale of the Shares to Investor pursuant to this Agreement shall be exempt from the registration requirements of the Act, the qualification requirements of the California General Corporation Law and the registration and/or qualification requirements of all other applicable state securities laws.

6.4 Proceedings and Documents. All corporate and other proceedings in connection with the transactions contemplated at the Closing or the Additional Closing (as applicable) and all documents incident thereto shall be reasonably satisfactory in form and substance to the Company, and the Company shall have received all such counterpart original and certified or other copies of such documents as may be reasonably requested.

7. Miscellaneous.

7.1 Survival. The warranties, representations and covenants of the Company and Investor contained in or made pursuant to this Agreement shall survive the execution and delivery of this Agreement and the Closing or the Additional Closing (as applicable) and shall in no way be affected by any investigation of the subject matter thereof made by or on behalf of Investor or the Company.

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

7.3 Governing Law. This Agreement shall be governed by and construed under the laws of the State of California as applied to agreements among California residents entered into and to be performed entirely within California, except with respect to conflict of laws.

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

7.5 Notices. All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (i) upon personal delivery to the party to be notified, (ii) when sent by confirmed telex or facsimile if sent during normal business hours of the recipient, if not, then on the next business day; (iii) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (iv) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the address as set forth on the signature page hereof or at such other address as such party may designate by ten (10) days' advance written notice to the other parties hereto.

7.6 Responsibility for Brokers Fees. Investor indemnifies and holds harmless the Company from any liability for any commission or compensation in the nature of a finders' fee (and the costs and expenses of defending against such liability or asserted liability) for which Investor or any of its officers, partners, employees or representatives is responsible. The Company indemnifies and holds harmless Investor from any liability for any commission or compensation in the nature of a finders' fee (and the costs and expenses of defending against such liability or asserted liability) for which the Company or any of its officers, employees or representatives is responsible.

7.7 Aggregation of Stock. All issued and outstanding shares of the Series C-1 Preferred Stock and Common Stock issued upon conversion thereof held or acquired by affiliated entities or persons shall be aggregated together for the purpose of determining the availability of any rights under this Agreement.

7.8 Amendments and Waivers. Any term of this Agreement may be amended, and the observance of any term of this Agreement may be waived (either generally or in a particular instance and either retroactively or prospectively), only with the written consent of the Company and Investor.

7.9 Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, such provision shall be excluded from this Agreement and the balance of the Agreement shall be interpreted as if such provision were so excluded and shall be enforceable in accordance with its terms.

7.10 Entire Agreement. This Agreement and the documents referred to herein constitute the entire agreement among the parties, and this Agreement supersedes all prior written and oral agreements, and all contemporaneous written and oral agreements, relating to the subject matter hereof.

7.11 Counterparts; Facsimile/PDF Signatures. This Agreement may be executed in two or more counterparts, and by facsimile signatures or portable document format (.pdf or similar format), each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

[SIGNATURE PAGE FOLLOWS]

[Company Signature Page to Subscription Agreement]

Dated: JUNE 25, 2009

COMPANY:

UNIDYM, INC.
a Delaware corporation

By: /S/ MARK TILLEY
Mark Tilley
CEO & President

Address: 1430 Obrien Drive
Menlo Park, CA 94025

[Investor Signature Page to Subscription Agreement]

I HEREBY REPRESENT THAT I HAVE READ AND UNDERSTOOD THE SUBSCRIPTION AGREEMENT.

Dated: JUNE 25, 2009

Subscription: I hereby subscribe for the following number of Shares at the Purchase Price indicated:

Total Number of Shares: 333,334

Total Purchase Price ($1.80 Per Share): payable as follows: $420,001.02 in cash and $80,000 in bridge loans and $100,000 for intercompany advances for payroll and operating expenses by Arrowhead for the benefit of Unidym.

Arrowhead Research Corporation
Please print the exact name(s) in which the Shares will be issued

Print Name of Signer: Paul McDonnel

Signature: /s/ Paul McDonnel

Title of Signer (if purchaser is an entity): Chief Financial Officer

Exhibit 10.6

EXCHANGE AGREEMENT

THIS EXCHANGE AGREEMENT (this "Agreement") is dated as of June 25, 2009, by and between Arrowhead Research Corporation, a Delaware corporation (the "Corporation"), and TEL Venture Capital, Inc. (the "Holder"). The Corporation and each Holder are referred to as a "Party" and collectively as the "Parties".

W I T N E S S E T H:

WHEREAS, the Corporation and the Holder are shareholders of Unidym, Inc., a Delaware corporation ("Unidym");

WHEREAS, the Holder desires to exchange shares of Series C Preferred Stock, $0.0001 par value per share and Series C-1 Preferred Stock, $0.0001 par value per share, of Unidym (each, a "Unidym Share" and, collectively, the "Unidym Shares") in the amounts set forth on Exhibit A, attached hereto for common stock of the Corporation, $0.001 par value per share (each, an "Arrowhead Share" and, collectively the "Arrowhead Shares");

WHEREAS, the Corporation desires to exchange (the "Exchange") one newly issued and unregistered Arrowhead Share for each Unidym Share and the agreement of the Holder to certain restrictions on the transfer and sale of any Arrowhead Shares it receives pursuant to this Agreement (the Arrowhead Shares received in the Exchange, referred to in this Agreement as the "Exchanged Shares"); and

WHEREAS, in partial consideration for the Exchange and to the extent Holder retains any Unidym Shares after the Exchange ("Retained Unidym Shares"), the Corporation desires that the Holder waive certain rights associated with respect to the Unidym Shares and the Retained Unidym Shares;

WHEREAS, the Holder is willing to waive certain rights with respect to the Unidym Shares and confirm that it prepared to waive certain rights with respect to Retained Unidym Shares subject to certain terms and conditions; and

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Exchange.

(a) Exchange Ratio. The Corporation and the Holder hereby agree to exchange at the Closing the Unidym Shares in the amounts set forth on Exhibit A, attached hereto, for Arrowhead Shares in the following ratio: one Unidym Share for one Arrowhead Share (1:1).

(b) Exchange. To effect this exchange, the Holder will deliver to the Corporation the stock certificate or certificates representing the Unidym Shares together with duly executed stock powers related thereto and the Corporation will deliver to the Holder a stock certificate or certificates representing the Exchanged Shares.

2. The Closing.

(a) Closing Date. The closing of the transactions contemplated by this Agreement (the "Closing") shall take place at the offices of Arrowhead Research Corporation at 10:00 a.m., Los Angeles time, on such date as agreed to by the parties on or after the date the conditions to closing set forth in this Agreement are satisfied ("Closing Date"), or at such other place, date or time as the parties may mutually agree in writing.

(b) Conditions to Closing of Holder. The obligation of the Holder to consummate the transactions on the Closing Date as contemplated by this Agreement shall be subject to the satisfaction or waiver on or prior to the Closing Date of the following conditions:

(i) the Corporation shall have performed and complied in all material respects with all obligations and agreements required to be performed and complied with by the Corporation hereunder on or prior to the Closing Date;

(ii) the representations and warranties of the Corporation contained in this Agreement shall be true and correct in all material respects as of the Closing Date as if made as of such date;

(iii) the Corporation shall have delivered to the Holder one or more stock certificates evidencing such Holder's ownership of the Exchanged Shares to be delivered on the Closing Date duly executed by the Corporation;

(iv) the Corporation shall have delivered to the Transfer Agent the instructions and pre-authorizations described in Section 5(b) of this Agreement relating to the acceptance of the opinion of counsel satisfactory to the Corporation authorizing the removal of the legends from the Exchanged Shares after the expiration of the Prohibited Period (as defined herein); and

(v) the Corporation shall have received all third party consents and all authorizations, consents and approvals of any Governmental Authority necessary to consummate the transactions contemplated hereby.

(c) Conditions to Closing of Corporation. The obligation of the Corporation to consummate the transactions on the Closing Date shall be subject to the satisfaction or waiver on or prior to the Closing Date of the following conditions:

(i) The Holder shall have each performed and complied in all material respects with all obligations and agreements required to be performed and complied with by each Holder hereunder on or prior to the Closing Date;

(ii) Holder shall have delivered to Corporation evidence and supporting documents satisfactory to Corporation that the Holder has complied with or obtained all necessary consents under the terms and conditions of the Amended and Restated Right of first Refusal and Co-Sale Agreement, (the "ROFR and Co-Sale Agreement") to exchange all the Unidym Shares free and clear of any Claims as required under this Agreement and with the requested assistance of the Corporation in obtaining such consents as set forth in Section 11(b) of this Agreement;

(iii) the representations and warranties of the Holder contained in this Agreement shall be true and correct in all material respects as of the Closing Date as if made as of such date;

(iv) Holder shall have delivered to the Corporation a certificate or the certificates representing all the Unidym Shares owned by Holder to be exchanged on such date and related executed stock powers; and

(v) Holder shall have received all third party consents and all authorizations, consents and approvals of any Governmental Authority necessary to consummate the transactions contemplated hereby.

3. Representations and Warranties of the Corporation. The Corporation represents and warrants to Holder as follows:

(a) Corporate Status. The Corporation is a corporation incorporated, validly existing and in good standing under the laws of the State of Delaware with full right, power and authority to execute, deliver and perform this Agreement.

(b) Authorization/Enforceability. This Agreement has been duly authorized, executed and delivered by the Corporation and constitutes the valid and legally binding obligation of the Corporation, enforceable in accordance with its terms and conditions. The Corporation need not give any notice to, make any filing with, or obtain any authorization, consent, or approval of any Governmental Authority in order to consummate the transactions contemplated by this Agreement.

(c) Non-Contravention. Neither the execution and the delivery of this Agreement, nor the consummation of the transactions contemplated hereby, will (i) violate any constitution, statute, regulation, rule, injunction, judgment, order, decree, ruling, charge, or other restriction of any Governmental Authority to which the Corporation is subject, or (ii) conflict with, result in a breach of, constitute a default under, result in the acceleration of, create in any party the right to accelerate, terminate, modify, or cancel, or require any notice under the certificate of incorporation or bylaws of the Corporation, or any agreement, contract, lease, license, instrument, or other arrangement to which the Corporation is a party or by which it is bound or to which any of its assets is subject.

(d) Consents/Approvals. No consent, approval, authorization, order, registration or qualification of or with any Governmental Authority or other Person or entity is required for the issuance and sale of the Exchanged Shares by the Corporation to Holder or the consummation by the Corporation of the transactions contemplated by this Agreement.

(e) Exchanged Shares Authorization. The Exchanged Shares have been duly authorized and, when issued and delivered, will be duly and validly issued and fully paid and nonassessable. Upon consummation of the transactions contemplated hereby, good and valid title to the Exchanged Shares, free and clear of all Claims, will be transferred by the Corporation to Holder.

(f) The Corporation has such knowledge and experience in financial and business matters so as to be capable of evaluating the merits and risk of an investment in and holding the Unidym Shares. The Corporation acknowledges that it has had access to all information concerning Unidym and it businesses, assets, liabilities, financial statements, and obligations which have been requested and has been provided the opportunity to ask questions of and receive answers from Unidym to fully and effectively evaluate the Exchange and the transactions contemplated herein. The Corporation acknowledges that Holder has not made, and the Corporation is not relying upon, any representations or warranties by Holder with respect to the business, operating or financial condition of Unidym.

(g) The Corporation understands that the Unidym Shares (and any Common Stock issued on conversion thereof) may not be sold, transferred or otherwise disposed of without registration under the Securities Act or an exemption therefrom, and that in the absence of an effective registration statement covering the Unidym Shares (or the Common Stock issued on conversion thereof) or an available exemption from registration under the Securities Act, the Unidym Shares (and any Common Stock issued on conversion thereof) must be held indefinitely. In particular, the Corporation is aware that the Unidym Shares (and any Common Stock issued on conversion thereof) may not be sold pursuant to Rule 144 promulgated under the Securities Act unless all of the conditions of that Rule are met. Among the conditions for use of Rule 144 is the availability of current information to the public about Unidym. Such information is not now available and the Corporation acknowledges that Unidym has no present plans to make such information available.

4. Representations and Warranties of Holder. The Holder represents and warrants to the Corporation as follows:

(a) Legal Capacity. The Holder has full legal right, power and authority to execute and deliver this Agreement and to perform his, her or its obligations hereunder. This Agreement constitutes the valid and legally binding obligation of Holder, enforceable in accordance with its terms and conditions. Holder need not give any notice to, make any filing with, or obtain any authorization, consent, or approval of any third party or Governmental Authority in order to consummate the transactions contemplated by this Agreement. Holder has been duly organized, and is validly existing and in good standing, under the laws of its jurisdiction of formation, and it has properly taken all corporate, limited liability, partnership or other action required to be taken by such Holder with respect to the execution and delivery of this Agreement and consummate the transactions contemplated by this Agreement.

(b) Title to Unidym Shares. Holder is the lawful record and beneficial owner of the Unidym Shares that will be transferred pursuant to Section 1 of this Agreement with good and marketable title thereto, and the Holder has the right to sell, assign, convey, transfer and deliver the Unidym Shares and any and all rights and benefits incident to the ownership thereof (including, without limitation, any registration or other rights pertaining to the Unidym Shares and the shares of common stock underlying such securities), all of which rights and benefits are transferable by the Holder to the Corporation pursuant to this Agreement, free and clear of all

Claims, except as set forth on the attached Schedule 4(b). The exchange of the securities as contemplated herein will (i) pass good and marketable title to all the Unidym Shares transferred pursuant to Section 1 of this Agreement to the Corporation, free and clear of all Claims, and (ii) convey, free and clear of all Claims, any and all rights and benefits incident to the ownership of such securities (including, without limitation, any registration or other rights pertaining to the securities and the shares of common stock underlying such securities).

(c) Non-Contravention. Neither the execution and the delivery of this Agreement, nor the consummation of the transactions contemplated hereby, will (i) violate any constitution, statute, regulation, rule, injunction, judgment, order, decree, ruling, charge, or other restriction of any Governmental Authority to which Holder is subject, or (ii) conflict with, result in a breach of, constitute a default under, result in the acceleration of, create in any party the right to accelerate, terminate, modify, or cancel, or require any notice under any agreement, organizational document, bylaws, partnership agreement, trust agreement, agreement any trust is bound by, contract, lease, license, instrument, or other arrangement to which Holder, as applicable, is a party or by which it is bound or to which any of its assets is subject.

(d) Consents/Approvals. No consent, approval, authorization, order, registration or qualification of or with any Governmental Authority or other entity or Person is required for the Exchange or the consummation by Holder of the transactions contemplated by this Agreement.

(e) Investment Representations.

(i) Holder qualifies as an "accredited investor" (as defined in Rule 501(a) of Regulation D under the Securities Act of 1933, as amended (the "Securities Act")) and is acquiring the Exchanged Shares hereunder for its own account and with no intention of distributing or selling the Exchanged Shares except pursuant to a registration or an available exemption under applicable law. Holder understands that the Exchanged Shares have not been (and are not being) registered under the Securities Act by reason of their contemplated issuance in transaction(s) exempt from the registration and prospectus delivery requirements of the Securities Act pursuant to Section 4(2) thereof (including the rules and regulations promulgated thereunder), and that the reliance of the Corporation on such exemption from registration is predicated in part on the representations and warranties of Holder hereunder.

(ii) Holder agrees that it will not sell or otherwise dispose of any of the Exchanged Shares unless such sale or other disposition has been registered or is exempt from registration under the Securities Act and has been registered or qualified or is exempt from registration or qualification under applicable securities laws of any State.

(iii) Holder understands that a restrictive legend consistent with the foregoing set forth in Section 11(a) of this Agreement has been or will be placed on the certificates evidencing the Exchanged Shares to be issued to it hereunder, and related stop transfer instructions will be noted in the transfer records of the Corporation and/or its transfer agent for the Exchanged Shares during the Prohibited Period.

(iv) Holder represents that it is not an Affiliate (as defined herein) of the Corporation and will covenant and agree that if it becomes an Affiliate, it will promptly provide notice to the Corporation of such status and comply with insider trading laws and policies and the applicable "control securities" provisions of Rule 144 in addition to any other obligations set forth in this Agreement.

(v) Holder has such knowledge and experience in financial and business matters so as to be capable of evaluating the merits and risk of an investment in the Exchanged Shares. Holder acknowledges that it has had access to all information concerning the Corporation and Unidym and their respective businesses, assets, liabilities, financial statements, and obligations which have been requested and has been provided the opportunity to ask questions of and receive answers from the Corporation and/or Unidym to fully and effectively evaluate the Exchange and the transactions contemplated herein. Holder understands that a new holding period for purposes of Rule 144 under the Securities Act will be triggered with respect to the Exchanged Shares, and such Holder is able to bear the economic risk of loss of the investment in such Exchanged Shares and is able to afford a complete loss of such investment.

5. Covenants.

(a) Current Public Information. Until such time as Rule 144 of the Securities Act or another similar exemption under the Securities Act is available for the sale of all of Holder's Exchanged Shares during any ninety (90) day period, the Corporation agrees to use commercially reasonable efforts to keep current in the filing of its quarterly and annual reports as required under the Securities and Exchange Act of 1934, as amended ("Exchange Act"), in order to allow resales under Rule 144 of the Securities Act, it being understood that the Holder shall remain subject to the contractual lock-up and prohibited sales period set forth in this Agreement. The Corporation shall notify Holder during any period it is not current with any such filing and shall take all commercially reasonable steps to cure any such late filing in a timely fashion.

(b) Removal of Legend. The Corporation shall use commercially reasonable efforts with the assistance of the Holder to facilitate removal of the restrictive legends set forth in Section 11(a) of this Agreement from the Exchanged Shares within ten (10) business days after expiration of the Prohibited Period (provided certificates have been submitted to the Transfer Agent prior to the end of the Prohibited Period). If for any reason the Legend cannot be removed as contemplated by this section, the Corporation shall use commercially reasonable efforts to work with the Holder to find an alternative solution that does not require any extraordinary or material costs to be incurred by the Corporation and the liquidated damages contemplated by this section shall not apply.

6. Restrictions on Exchanged Shares.

(a) Prohibited Sale Period. For a period of twelve (12) months from the Closing Date (the "Prohibited Period"), Holder agrees that it shall not (i) offer, sell, contract to sell, pledge or otherwise dispose of any of such Holder's Exchanged Shares (or securities convertible into or exchangeable for such Exchanged Shares) received in the Exchange, whether held directly or indirectly, or (ii) enter into a transaction which would have the same effect, or enter into any swap, option, contract to purchase or sell, hedge or other arrangement that transfers, in whole or in part, any economic consequences of owning any such security.

(b) Permitted Sales. For the purpose of clarification, the Corporation acknowledges that nothing contained in Section 6(a) of this Agreement is intended to restrict Holder's ability to sell (i) Arrowhead Shares that are not Exchanged Shares that are held or acquired by the Holder in transactions outside of this Agreement in the open market (unless as part of a plan or scheme to evade the terms and conditions of this Agreement); (ii) Exchanged Shares in a private, non-public negotiated transaction in which, if reasonably requested by the Corporation, Holder shall have furnished an opinion of counsel, reasonably satisfactory to the Corporation, that such sale will not require registration of the Exchanged Shares under the Securities Act;; or (iii) shares of Exchanged Shares pursuant to Rule 144, provided that the Exchanged Shares are sold to a single party in a single transaction (the Corporation shall utilize commercially reasonable effort to assist in the identification of such a potential party if desired by Holder) and the proceeds from the sale of such shares are re-invested in an equity financing (including a financing involving debt convertible into equity) of Unidym. Notwithstanding the foregoing, Holder acknowledges that it may be subject to other restrictions imposed on it by the federal or state securities laws of the United States.

7. Termination.

(a) In the event the Closing Date does not occur on or before September 15, 2009, this Agreement may be terminated in writing after such date (i) by the Corporation or (ii) by the Holder upon two (2) days prior written notice to the Corporation.

(b) In the event that any Person exercises its co-sale rights under the ROFR and Co-Sale Agreement, and the number of Unidym Shares to be exchanged is reduced, the Holder shall have the option to terminate this Agreement and withdraw all of Holder's Unidym Shares from the Exchange, upon two (2) days prior written notice to the Corporation.

8. Indemnification.

(a) The Holder understands and acknowledges that the Corporation is relying on representations, warranties, covenants and agreements made by such Holder to the Corporation in this Agreement. The Holder, as applicable, hereby agrees to indemnify, defend and hold harmless the Corporation and its directors, officers, shareholders, principals, Affiliates, representatives, agents and employees (each, a "Corporation Indemnified Party"), against any and all loss, damage, liability or expense (collectively, "Losses") which any Corporation Indemnified Party may suffer, sustain or incur by reason of or in connection with or arising under (i) any inaccuracy or breach of representation or warranty of such Holder contained in this

Agreement; (ii) the breach of this Agreement or any covenant or agreement made by such Holder in this Agreement; or (iii) the sale or distribution by such Holder of the Exchanged Shares in violation of this Agreement and/or the Securities Act or any other applicable law. This right to indemnification is in addition to any other remedy available to the Corporation under this Agreement. In no event shall the Holder or its Affiliates or their respective officers, directors, employees, trustees be liable to a Corporation Indemnified Party for indirect, incidental, consequential, special, exemplary or punitive damages or attorney's fees of any kind.

(b) The Corporation understands and acknowledges that the Holder is relying on representations, warranties, covenants and agreements made by the Corporation to such Holder in this Agreement. The Corporation hereby agrees to indemnify, defend and hold harmless the Holder and its officers, principals, Affiliates, trustees, agents and representatives, as applicable, (each, a "Holder Indemnified Party"), against any and all Losses which any Holder Indemnified Party may suffer, sustain or incur by reason of or in connection with or arising under (i) any inaccuracy or breach of representation or warranty of the Corporation contained in this Agreement; or (ii) the breach of this Agreement or any covenant or agreement made by the Corporation in this Agreement. This right to indemnification is in addition to any other remedy available to each Holder under this Agreement. In no event shall the Corporation or its Affiliates or their respective officers, directors, employees, trustees be liable to a Holder Indemnified Party for indirect, incidental, consequential, special, exemplary or punitive damages or attorney's fees of any kind.

9. Waiver of Certain Rights. Under the "Unidym, Inc., Subscription Agreement, Series C-1 Preferred Stock" dated November 11, 2008 (the "Holder C-1 Subscription Agreement"), the Holder has certain rights vis-à-vis Unidym with respect to the Unidym Shares and the Retained Unidym Shares. Specifically, Section 5 of the Holder C-1 Subscription Agreement sets forth Optional Put Rights. Section 5.1 sets forth "Put A Right" and Section 5.2 sets forth "Put B Rights."

(a) Holder hereby irrevocably waives, discharges and declares moot any and all rights it has with respect to both the Put A Right and the Put B Right in their entirety, with respect to the Unidym Shares, effective immediately prior to the Exchange.

(b) To the extent Holder has Retained Unidym Shares subsequent to the Exchange, the Holder hereby confirms that it has agreed to irrevocably waive, discharge and declare moot any and all rights it has with respect to both the Put A Right and the Put B Right in their entirety, with respect to such Retained Unidym Shares, subject only to and effective upon Unidym meeting certain funding requirements on or prior to July 31, 2009 as set forth in the Agreement Regarding Intellectual Property and Waiver of Put Options between Unidym and TEL Venture Capital Inc. dated June , 2009 attached hereto as Exhibit B.

(c) Except as set forth in this Section 9, the Holder C-1 Subscription Agreement shall remain in force unchanged.

10. Certain Definitions.

(a) "Affiliate" (and, with a correlative meaning, "affiliated") means, with respect to any Person, any direct or indirect subsidiary of such Person, and any other Person that directly, or through one or more intermediaries, Controls or is Controlled by or is under common Control with such first Person. As used in this definition, "Control" (and, with correlative meanings, "Controlled by" and "under common Control with") means the possession, directly or indirectly, of the power to direct the management or policies of a Person (whether through ownership of securities or partnership or other ownership interests, by contract or otherwise).

(b) "Claims" shall mean the following of any nature whatsoever: security interests, liens, deeds of trust, hypothecations, pledges, claims (pending or threatened), charges, escrows, encumbrances, lock-up arrangements, options, rights of first offer or refusal, community property rights, mortgages, indentures, security agreements or other agreements, arrangements, contracts, commitments, understandings or obligations, whether written or oral and whether or not relating in any way to credit or the borrowing of money.

(c) "Governmental Authority" means any entity exercising executive, legislative, judicial, regulatory or administrative functions of or pertaining to government, including any governmental authority, independent or autonomous official authority, agency, department, board, commission or instrumentality of the United States or any other country, or any political subdivision thereof, whether federal, state or local, and any tribunal, court or arbitrator(s) of competent jurisdiction.

(d) "Person(s)" means and includes any natural persons, sole proprietorships, corporations, limited partnerships, limited liability companies, general partnerships, joint stock companies, joint ventures, associations, companies, trusts, banks, trust companies, land trusts, business trusts or other organizations, whether or not legal entities, all Governmental Authorities and all other entities.

(e) "Transfer Agent" shall mean Computershare Limited, 350 Indiana St., Suite 800, Golden, CO 80401, in its capacity as transfer agent to the Corporation, or any successor transfer agent to the Corporation.

11. Miscellaneous.

(a) Legend Requirement. Each certificate representing Exchanged Shares held or acquired by Holder will contain legends acknowledging that the shares represented by such certificate are restricted securities and are subject to this Agreement, as follows:

THE SECURITIES REPRESENTED BY THIS INSTRUMENT HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR ANY STATE SECURITIES LAWS, AND NO SALE, ASSIGNMENT, PLEDGE, HYPOTHECATION, GIFT, TRANSFER OR OTHER DISPOSITION OR OFFER TO DO ANY OF THE FOREGOING MAY BE MADE UNLESS A REGISTRATION STATEMENT UNDER THE SECURITIES ACT AND OTHER APPLICABLE SECURITIES LAWS WITH RESPECT TO SUCH

SECURITIES IS THEN IN EFFECT, OR IN THE OPINION OF COUNSEL ACCEPTABLE TO THE ISSUER, SUCH REGISTRATION UNDER THE SECURITIES ACT AND OTHER APPLICABLE SECURITIES LAWS IS NOT REQUIRED.

THE OWNERSHIP, ENCUMBRANCE, PLEDGE, ASSIGNMENT, SALE, TRANSFER OR OTHER DISPOSITION OF THIS CERTIFICATE OF STOCK, OR SHARES ISSUED IN LIEU HEREOF, IS SUBJECT TO THE RESTRICTIONS CONTAINED IN AN EXCHANGE AGREEMENT ("EXCHANGE AGREEMENT") BY AND AMONG THE CORPORATION AND CERTAIN STOCKHOLDERS OF THE CORPORATION THAT REMAINS IN EFFECT UNTIL JUNE 15, 2010. A COPY OF THE EXCHANGE AGREEMENT IS ON FILE AT THE OFFICE OF THE CORPORATION. ANY ENCUMBRANCE, PLEDGE, ASSIGNMENT, SALE, TRANSFER OR OTHER DISPOSITION OF THIS STOCK CONTRARY TO THE EXCHANGE AGREEMENT SHALL BE NULL AND VOID AND OF NO EFFECT WHATSOEVER.

The Transfer Agent and any applicable broker shall each be instructed not to recognize any transfer by the Holder that does not comply with this Agreement.

(b) Assistance. By executing this Agreement, the Holder hereby requests that the Corporation endeavor to assist Holder (without warranty of any kind) in their compliance with the right of first refusal and co-sale mechanics and requirements set forth in the ROFR and Co-Sale Agreement. The Holder agrees to fully and promptly cooperate with the Corporation.

(c) Equitable Remedy. Each Party shall agree that in addition to any other remedy that may be available to such Party hereunder, the Party shall be entitled to specific performance. Notwithstanding anything to the contrary in this Agreement, each Party shall be responsible for paying its own expenses, including legal fees, incurred in enforcing this Agreement.

(d) Notices. All notices, claims, demands and other communications hereunder shall be in writing and shall be deemed given upon (i) confirmation of receipt of a facsimile transmission, (ii) confirmation of delivery when delivered by a standard overnight carrier or (iii) the expiration of five (5) business days after the day when mailed by registered or certified mail (postage prepaid, return receipt requested), addressed to the respective Parties at the following addresses (or such other address for a Party as shall be specified by like notice):

If to the Corporation, to: Arrowhead Research Corporation
201 South Lake Avenue, Suite 703
Pasadena, CA 91101

Attention: Dr. Christopher Anzalone
Telephone: (626) 304-3400
Fax: (626) 304-3401

If to Holder, to: TEL Venture Capital, Inc.
2953 Bunker Hill Lane, Suite 300
Santa Clara, CA 95054

Attention: Tetsuo Hirose
Telephone: (408) 566-4403
Facsimile: (408) 566-4410

(e) Third-Party Beneficiaries. The Corporation and Holder acknowledge and agree that Unidym is intended to be a third-party beneficiary of Section 9 of this Agreement and that Unidym shall have the right to rely on and enforce Section 9 as if it were party hereto.

(f) Entire Agreement. This Agreement (including the documents referred to herein) constitutes the entire agreement among the parties hereto and supersedes any prior understandings, agreements, or representations by or among the parties, written or oral, to the extent they relate in any way to the subject matter hereof.

(g) Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original but all of which together will constitute one and the same instrument.

(h) Headings. The section headings contained in this Agreement are inserted for convenience only and shall not affect in any way the meaning or interpretation of this Agreement.

(i) Governing Law. This Agreement shall be governed by and construed in accordance with the domestic laws of the State of Delaware without giving effect to any choice or conflict of law provision or rule (whether of the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware.

(j) Amendments and Waivers. No amendment of any provision of this Agreement shall be valid unless the same shall be in writing and signed by the Corporation and the Holder.

(k) Gender. All pronouns and any variation thereof shall be deemed to refer to the masculine, feminine, neuter, singular, or plural as the identity of the person or entity or the context may require.

(l) Severability. Any term or provision of this Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions hereof or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction.

(m) No Presumption Against Drafter. Each of the Parties has jointly participated in the negotiation and drafting of this Agreement. In the event of any ambiguity or a question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by each of the Parties and no presumptions or burdens of proof shall arise favoring any Party by virtue of the authorship of any of the provisions of this Agreement.

(n) Successors and Assigns. Except as otherwise specifically provided herein, this Agreement shall be binding upon, and inure to the benefit of, the Parties hereto and their respective successors and permitted assigns.

(o) Survival. All covenants, agreements, representations and warranties made herein shall survive the Closing and the consummation of the Exchange of the Unidym Shares.

IN WITNESS WHEREOF, this Exchange Agreement has been duly executed by or on behalf of each of the parties hereto on the date first above written.

ARROWHEAD RESEARCH CORPORATION,
a Delaware corporation

By: /s/ Christopher Anzalone
Name: Christopher Anzalone
Title: CEO and President

HOLDER:

TEL Venture Capital, Inc.

By: /s/ Mike Yamaguchi
Name: Mike Yamaguchi
Title: CEO

Unidym acknowledges and is in agreement with Sections 9 and 11(e) of this Agreement.

UNIDYM, INC:

By: /s/ Mark Tilley
Name: Mark Tilley
Title: CEO

EXHIBIT A – Exchanged Shares

Holder (Name and Address)	Number and Class of Unidym Shares to be Exchanged	Number of Exchanged Shares to be Received
TEL Venture Capital, Inc. 2953 Bunker Hill Lane, Suite 300 Santa Clara, CA 95054	1,111,111 Series C	1,944,444
	833,333 Series C-1	

UNIDYM, INC.

SUBSCRIPTION AGREEMENT

SERIES C-1 PREFERRED STOCK

SUBSCRIPTION AGREEMENT

THIS SUBSCRIPTION AGREEMENT (this "***Agreement***") is made as of the last date indicated on the signature pages hereto between Unidym, Inc., a Delaware corporation (the "***Company***"), and the undersigned investor party hereto ("***Investor***").

RECITALS

WHEREAS, the Company wishes to sell additional shares of the Company's Series C-1 Preferred Stock ("***Shares***") to the Investor, at a purchase price of $1.80 per Share, and the Investor wishes to purchase Shares from the Company.

NOW, THEREFORE, in consideration of the mutual covenants, agreements and conditions, and upon acknowledgement of each of the parties of the receipt of valuable consideration, the parties herein agree as follows:

1. Purchase and Sale of Shares.

1.1 The Closing. At the Closing (as defined below), the Company shall issue and sell to Investor such number of Shares as is set forth immediately below Investor's name on the signature pages hereto against delivery to the Company by Investor of an amount equal to $1.80 times the number of Shares to be purchased by the Investor (the "***Purchase Price***"), paid by (a) cash (by check or wire transfer) in United States Dollars to the Company to be held in escrow until the Closing, for release to the Company thereafter or (b) cancellation of indebtedness of the Company to Investor. Promptly after the Closing, the Company shall deliver to Investor a duly executed certificate representing the Shares which Investor is purchasing hereunder. The purchase and sale transaction contemplated hereby will close on the first business day immediately following the satisfaction of the Closing conditions set forth herein, which is targeted to be no later than 5:00 p.m., Pacific Time on July 31, 2009, as such date and time may be modified by the Company in its sole discretion (such day, the "***Closing***").

1.2 Additional Closing(s).

(a) Conditions of Additional Closing(s). At any time and from time to time following the Closing, the Company may, at one or more additional closings (each an "***Additional Closing***"), without obtaining the signature, consent or permission of Investor, offer and sell to other investors (the "***New Investors***"), at a price of $1.80 per Share, additional Shares. New Investors may include persons or entities who are already owners of shares of the Company's Series C-1 Preferred Stock or other capital stock.

(b) Amendments. The Company and the New Investors purchasing Shares at each Additional Closing will execute a Subscription Agreement in substantially the same form hereof, and the New Investors will, to the extent not already a party thereto, execute counterpart signature pages to: (i) the Amended and Restated Investors' Rights Agreement in the form attached to this Agreement as Exhibit A, as amended (the "***Investors' Rights Agreement***"), (ii) the Amended and Restated Right of First Refusal and Co-Sale Agreement in the form attached to this Agreement as Exhibit B, as amended (the "***ROFR Agreement***"), and (iii) the Amended and Restated Voting Agreement in the form attached to this Agreement as Exhibit C, as amended (the "***Voting Agreement***") (the Investors' Rights Agreement, ROFR Agreement and Voting Agreement, as such agreements may be amended, collectively, the "***Related Agreements***"). Such New Investors will, upon delivery to the Company of such signature pages, become parties to, and bound by, the Related Agreements, each to the same extent as if they had been an Investor at the time of issuance of the first share of Series C-1 Preferred Stock.

(c) Status of New Investors. Upon the completion of each Additional Closing as provided in this Section 1.2, each New Investor will be deemed to be an "Investor" for all purposes of the Related Agreements.

2. Representations and Warranties of the Company. The Company hereby represents and warrants to Investor, that the statements in the following paragraphs of this Section 2 are all true and complete as of the date hereof:

2.1 Organization, Good Standing and Qualification. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware. The Company is duly qualified to transact business and is in good standing in each jurisdiction in which the failure to so qualify would reasonably be expected to have a material adverse effect on (a) the present or future business, assets, or operations, of the Company, taken as a whole or (b) the Company's ability to perform this Agreement or the Related Agreements (as defined below) (a "***Material Adverse Effect***").

2.2 Capitalization and Voting Rights.

(a) Authorized Stock. There are authorized for issuance 50,000,000 shares of common stock, par value $0.0001 (the "***Common Stock***") and 22,506,585 shares of preferred stock, par value $0.0001 (the "***Preferred Stock***"), of which 5,000,000 shares are designated as Series A Convertible Preferred Stock ("***Series A Preferred Stock***"), 5,673,252 shares are designated as Series B Senior Convertible Preferred Stock ("***Series B Preferred Stock***"), 8,500,000 shares are designated as Series C Senior Convertible Preferred Stock ("***Series C Preferred Stock***"), and 3,333,333 shares are designated as Series C-1 Preferred Stock ("***Series C-1 Preferred Stock***"). Immediately prior to the Closing, the outstanding stock of the Company consists of the following:

(i) Common Stock. Three Million Seven Hundred Eighty Thousand One Hundred (3,780,100) shares of issued and outstanding Common Stock.

(ii) Series A Preferred Stock. Five Million (5,000,000) shares of issued and outstanding Series A Preferred Stock, which shares of Series A Preferred Stock are convertible into 1.680096462 shares of Common Stock upon (x) an involuntary or voluntary liquidation, dissolution and winding up of the Company, (y) a Deemed Liquidation Event (as such term is defined in the Restated Certificate (as defined below)) or (z) a Qualified IPO (as such term is defined in the Restated Certificate).

(iii) Series B Preferred Stock. Five Million Six Hundred Seventy Three Thousand Two Hundred Fifty-Two (5,673,252) shares of issued and outstanding Series B Preferred Stock, which shares of Series B Preferred Stock are convertible into 1.000042304 shares of Common Stock.

(iv) Series C Preferred Stock. Eight Million One Hundred Twenty Five Thousand Eight Hundred Eighty-Nine (8,125,889) shares of issued and outstanding Series C Preferred Stock.

(v) Series C-1 Preferred Stock. Two Million Two Hundred FiftyThousand Six Hundred Sixty Seven (2,250,667) shares of issued and outstanding Series C-1 Preferred Stock.

Upon the Closing, the rights, preferences and privileges of each series of Preferred Stock will be as stated in the Restated Certificate and as provided by law.

(b) Valid Issuance. The outstanding shares of Common Stock and Preferred Stock are all duly and validly authorized and issued, fully paid and nonassessable.

(c) Rights to Acquire. Except for (i) the conversion privileges of the Preferred Stock, (ii) the rights of first refusal provided in Section 4 of the Investors' Rights Agreement, (iii) the Five Million (5,000,000) shares of Common Stock reserved for issuance to employees, consultants and/or directors pursuant to the Company's 2006 Stock Option/Stock Issuance Plan (the "*Option Plan*"), of which options to purchase an aggregate of Three Million Eight Hundred Seven Thousand Two Hundred Two (3,807,202) shares of Common Stock are currently outstanding, (iv) outstanding warrants to purchase Three Million Five Hundred Ten Thousand Two Hundred Eight (3,510,208) shares of Common Stock and (vi) outstanding restricted stock units for the issuance of One Million One Hundred Four Thousand Ten (1,104,010) shares of Common Stock, and (v) the Company's obligation to purchase 277,779 shares of Series C-1 Preferred Stock from TEL Venture Capital Inc. ("TEL") in the event certain conditions are not met and TEL requests that Unidym purchases the 277,779 shares, there are not outstanding any options, warrants, rights (including conversion or preemptive rights) or agreements for the purchase or acquisition from the Company of any shares of its capital stock.

(d) Voting of Shares. Other than the Voting Agreement, the Company is not a party or subject to any agreement or understanding and, to the Company's knowledge, there is no agreement or understanding between any persons and/or entities which affects or relates to the voting or giving of written consents with respect to any security or by a director of the Company.

(e) Market Stand-Off. To the Company's best knowledge, all outstanding shares of preferred stock of the Company and all capital stock of the Company issuable upon the exercise of outstanding employee incentive stock options are subject to a one hundred eighty (180) day "market stand-off" restriction upon an initial public offering by the Company resulting in at least $20 Million in gross proceeds pursuant to a registration statement filed with the Securities and Exchange Commission ("***SEC***") pursuant to the Securities Act of 1933, as amended (the "***Act***").

2.3 Subsidiaries. Except for (i) the minority ownership position in Nexeon MedSystems pursuant to the license agreement with Nanotech Catheter Solutions, and (ii) the 100% ownership position in Nanoconduction, Inc., the Company does not presently own or control, directly or indirectly, any interest in any other corporation, association, or other business entity. The Company is not a participant in any joint venture, partnership, or similar arrangement.

2.4 Authorization. All corporate action on the part of the Company, its officers, directors and stockholders necessary for the authorization, execution and delivery of this Agreement, the Related Agreements, the performance of all obligations of the Company hereunder and thereunder, and the authorization, sale and issuance of the Shares being sold hereunder, and the Common Stock issuable upon conversion of the Shares, has been taken or will be taken prior to the Closing. As of the Closing, this Agreement and the Related Agreements constitute valid and legally binding obligations of the Company, enforceable in accordance with their respective terms, except (i) as limited by applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies, and (iii) to the extent the indemnification provisions contained in the Related Agreements may be limited by applicable federal or state securities laws.

2.5 Valid Issuance of Preferred and Common Stock. The Shares that are being purchased by Investor hereunder, when issued, sold and delivered in accordance with the terms of this Agreement for the consideration expressed herein, will be duly and validly issued, fully paid and nonassessable and will be free of restrictions on transfer, other than restrictions on transfer, if any, (i) under this Agreement, the Investor's Rights Agreement and the ROFR Agreement, (ii) under applicable state and

federal securities laws and (iii) otherwise imposed as a result of actions taken by Investor. The Common Stock issuable upon conversion of the Shares purchased under this Agreement has been duly and validly reserved for issuance and, upon issuance in accordance with the terms of the Company's Fourth Amended and Restated Certificate of Incorporation in the form attached hereto as Exhibit D-1 (the "***Restated Certificate***"), will be duly and validly issued, fully paid and nonassessable and will be free of restrictions on transfer, other than restrictions on transfer, if any (i) under this Agreement, the Investor's Rights Agreement and the ROFR Agreement, (ii) under applicable state and federal securities laws and (iii) otherwise imposed as a result of actions taken by Investor.

2.6 Governmental Consents. No consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any federal, state or local governmental authority on the part of the Company is required in connection with the consummation of the transactions contemplated by this Agreement and the Related Agreements, except for such consents, approvals, orders, authorizations, registrations, qualifications, designations, declarations or filings which are not required to be obtained prior to the Closing, and such filings as are required pursuant to applicable federal and state securities laws and blue sky laws, which filings will be effected within the required statutory period.

2.7 Offering. Subject in part to the truth and accuracy of Investor's representations set forth in Section 3 of this Agreement, the offer, sale and issuance of the Shares as contemplated by this Agreement are exempt from the registration requirements of the Act, and the qualification or registration requirements of applicable state blue sky laws, as such registration requirements and laws currently exist.

2.8 Litigation. There is no action, suit, proceeding or investigation pending or, to the Company's knowledge, currently threatened in writing against the Company that questions the validity of this Agreement or the Related Agreements, or the right of the Company to enter into such agreements or to consummate the transactions contemplated hereby and thereby, or that would reasonably be expected to result in a Material Adverse Effect. The Company is not a party or subject to the provisions of any order, writ, injunction, judgment or decree of any court or government agency or instrumentality. There is no action, suit, proceeding or investigation by the Company currently pending or that the Company currently intends to initiate.

2.9 Proprietary Information Agreements. Each current employee of the Company has executed a Proprietary Information and Inventions Agreement in substantially the form provided to Investor upon request by Investor. The Company is not aware that any such employee is in violation thereof.

2.10 Compliance with Other Instruments. The Company is not in violation of any provision of its Restated Certificate or Bylaws nor, to its knowledge, of any instrument, judgment, order, writ, decree or contract, statute, rule or regulation to which the Company is subject and a violation of which would reasonably be expected to have a Material Adverse Effect. The execution, delivery and performance of this Agreement and the Related Agreements, and the consummation of the transactions contemplated hereby and thereby will not result in any such violation, or be in conflict with or constitute, with or without the passage of time and giving of notice, either a default under any such provision or an event that results in the creation of any lien, charge or encumbrance upon any assets of the Company or the suspension, revocation, impairment, forfeiture or nonrenewal of any material permit, license, authorization or approval applicable to the Company, its business or operations or any of its assets or properties.

2.11 Agreements; Action. Except for agreements explicitly contemplated hereby, there are no agreements or understandings between the Company and any of its officers, directors, affiliates or any affiliate thereof (except for quarterly allocations for services performed by Arrowhead) and except as set forth on Schedule 2.11,

(a) there are no agreements, understandings, instruments, contracts, judgments, orders, writs or decrees to which the Company is a party or by which it is bound that may involve (i) obligations (contingent or otherwise) of, or payments to the Company, in excess of $10,000, other than obligations of, or payments to, the Company arising from purchase or sale agreements entered into in the ordinary course of business, or (ii) provisions materially restricting the development, manufacture or distribution of the Company's products or services, and

(b) The Company has not (i) declared or paid any dividends or authorized or made any distribution upon or with respect to any class or series of its capital stock, (ii) made any loans or advances to any person, other than ordinary advances for travel expenses, or (iii) sold, exchanged or otherwise disposed of any of its assets or rights.

(c) For the purposes of subsections (a) and (b) above, all indebtedness, liabilities, agreements, understandings, instruments and contracts involving the same person or entity (including persons or entities the Company has reason to believe are affiliated therewith) shall be aggregated for the purpose of meeting the individual minimum dollar amounts of such subsections.

2.12 Related-Party Transactions. No employee, officer or director of the Company or member of his or her immediate family is indebted to the Company, nor is the Company indebted (or committed to make loans or extend or guarantee credit) to any of them. To the best of the Company's knowledge, other than in Arrowhead Research Corporation, a Delaware corporation ("***Arrowhead***") or in any of Arrowhead's subsidiaries, none of such persons has any direct or indirect ownership interest in any firm or corporation with which the Company is affiliated or with which the Company has a business relationship, or any firm or corporation that competes with the Company, except that employees, officers or directors of the Company and members of their immediate families may own stock in publicly traded companies that may compete with the Company. No member of the immediate family of any officer or director of the Company is directly or indirectly interested in any material contract with the Company.

2.13 No Undisclosed Liabilities. Except as set forth in the Financial Statements (as defined in Section 2.25), the Company does not have any liabilities (whether accrued, absolute, unliquidated, contingent or otherwise, whether or not known to the Company, whether due or to become due and regardless of when asserted) arising out of transactions entered into at or prior to the Closing, or any action or inaction at or prior to the Closing or any state of facts existing at or prior to the Closing other than (i) liabilities and obligations that have arisen after March 31, 2009 in the ordinary course of business (none of which is material and none of which is a liability resulting from breach of contract, breach of warranty, tort, infringement, claim or lawsuit), or (ii) obligations under contracts and commitments incurred in the ordinary course of business that would not be required to be reflected in financial statements prepared in accordance with generally accepted accounting principles. The Company is not a guarantor or indemnitor of any indebtedness of any other person, firm or corporation.

2.14 Permits. The Company has all franchises, permits, licenses and any similar authority necessary for the conduct of its business as now being conducted by it, except to the extent the lack of which would not reasonably be expected to have a Material Adversely Effect. The Company is not in default under any of such franchises, permits, licenses or other similar authority which would be reasonably expected to have a Material Adverse Effect.

2.15 Environmental and Safety Laws.

(a) Except as set forth in Section 2.14(b), to its knowledge, the Company is not in violation of any applicable statute, law or regulation relating to the environment or occupational health and safety, and, to its knowledge, no material expenditures are or will be required in order to comply with any such existing statute, law or regulation.

(b) The US Environmental Protection Agency (the "***EPA***") has issued recent guidance regarding the classification of carbon nanotubes under the Toxic Substances Control Act. The EPA has stated that it now considers carbon nanotubes to be "new chemicals" rather than materials previously listed on the TSCA Inventory, such as synthetic graphite or other carbon compounds. The Company is in the process of reviewing its compliance with this guidance and has filed paperwork with the EPA. Accordingly, the Company withholds any representation or warranty regarding the matters disclosed in this Section 2.14(b), including its compliance with the new EPA guidance.

2.16 Disclosure. The Company has fully provided Investor with all the information that Investor has requested in writing for deciding whether to purchase the Shares. Neither this Agreement (including all the exhibits and schedules hereto) nor any other statements or certificates made or delivered in connection herewith contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements herein or therein not misleading in light of the circumstances under which they were made.

2.17 Registration Rights. Except as provided in the Investors' Rights Agreement, the Company has not granted or agreed to grant any registration rights, including piggyback rights, to any person or entity.

2.18 Title to Property and Assets. The property and assets used by the Company in its business are owned by the Company free and clear of all mortgages, liens, loans and encumbrances, except for (i) statutory liens for the payment of current taxes that are not yet delinquent and (ii) for liens, encumbrances and security interests that arise in the ordinary course of business and/or pursuant to applicable law, and minor defects in title, none of which, individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect. With respect to the property and assets it leases, the Company is in compliance with such leases and, to its knowledge, holds a valid leasehold interest free of any liens, claims or encumbrances, subject to clauses (i)-(ii) of the foregoing sentence, except to the extent the failure to be in compliance or hold a valid leasehold interest would not reasonably be expected to have a Material Adverse Effect.

2.19 Labor Agreements and Actions. The Company is not bound by or subject to any contract, commitment or arrangement with any labor union, and no labor union has requested or, to the Company's knowledge, has sought to represent any of the employees, representatives or agents of the Company. There is no strike or other labor dispute involving the Company pending, or to the Company's knowledge, threatened in writing, that would reasonably be expected to have a Material Adverse Effect, nor is the Company aware of any labor organization activity involving its employees. The Company is not aware that any officer or key employee, or that any group of key employees, intends to terminate their employment with the Company, nor does the Company have a present intention to terminate the employment of any of the foregoing. The employment of each officer and employee of the Company is terminable at the will of the Company. The Company is not a party to or bound by any currently effective employment contract, deferred compensation agreement, bonus plan, incentive plan, profit sharing plan, retirement agreement or other employee compensation agreement**.** To its knowledge, the Company has complied in all material respects with all applicable state and federal equal employment opportunity and other laws related to employment.

2.20 Brokers Fees. The Company expects to pay third-party finders or advisors finder's fees (in cash and/or equity) for Shares placed by such third party. For the sake of clarity, no finder's fees will be paid for Shares not placed by a third-party finder or advisor.

2.21 Intellectual Property. To its knowledge, the Company has rights to all patents, patent applications, trademarks, service marks, trade names, copyrights, trade secrets, licenses, inventions, information and proprietary rights and processes (collectively, "***Intellectual Property***") it needs to operate its business as currently conducted, other than Intellectual Property that it reasonably believes is invalid or it can obtain rights to through a license or cross-licensing arrangement. The Company has not received any communications alleging that the Company has violated or, by conducting its business as presently proposed, would violate any of the Intellectual Property of any other person or entity. The Company is not aware that any of its employees is obligated under any contract (including licenses, covenants or commitments of any nature) or other agreement, or subject to any judgment, decree or order of any court or administrative agency, that would interfere with the use of his or her best efforts to promote the interests of the Company or that would conflict with the Company's business as presently proposed to be conducted. Neither the execution nor delivery of this Agreement, nor the carrying on of the Company's business by the employees of the Company, nor the conduct of the Company's business as presently proposed, will, to the Company's knowledge, conflict with or result in a breach of the terms, conditions or provisions of, or constitute a default under, any contract, covenant or instrument under which any of such employees is now obligated. The Company does not believe it is or will be necessary to utilize any inventions of any of its employees (or people it currently intends to hire) made prior to their employment by the Company.

2.22 Tax Returns and Payments. There are no federal, state, county, local or foreign taxes dues and payable by the Company which have not been timely paid. There are no accrued and unpaid federal, state, country, local or foreign taxes of the Company which are due, whether or not assessed or disputed. There have been no examinations or audits of any tax returns or reports by any applicable federal, state, local or foreign governmental agency. The Company has duly and timely filed all federal, state, county, local and foreign tax returns required to have been filed by it and there are in effect no waivers of applicable statutes of limitations with respect to taxes for any year.

2.23 Insurance. The Company has in full force and effect fire and casualty insurance policies with extended coverage, sufficient in amount (subject to reasonable deductions) to allow it to replace any of its properties that might be damaged or destroyed.

2.24 ERISA. The Company has made all required contributions and has no liability to any such employee benefit plan, other than liability for health plan continuation coverage described in Part 6 of Title I(B) of Employee Retirement Income Security Act of 1974, as amended, and has complied in all material respects with all applicable laws for any such employee benefit plan.

2.25 Financial Statements. Attached hereto in Schedule 2.25 is the Company's unaudited financial statements (balance sheet, income statement and statement of cash flows) dated March 31, 2008 ("***Financial Statements***"). The Financial Statements have been prepared in accordance with U.S. generally accepted accounting principles applied on a consistent basis throughout the periods indicated and with each other. The Financial Statements are true, correct and complete and fairly present the financial condition and operating results of the Company as of the dates, and for the periods, indicated therein, subject to normal year-end audit adjustments.

2.26 Changes. Since March 31, 2009, and at all times up to the Closing, there have not been:

a. any material change in the assets, liabilities, financial condition or operating results of the Company from that reflected in the Financial Statements, except (i) the sale by the Company of certain assets, including equipment, inventory and intellectual property rights pursuant to a Asset purchase Agreement, dated as of May 1, 2009, between the Company and Continental Carbon Nanotechnologies, and (ii) changes in the ordinary course of business that have not been, in the aggregate, materially adverse;

b. any damage, destruction or loss, whether or not covered by insurance, materially and adversely affecting the assets, properties, financial condition, operating results, prospects or business of the Company (as such business is presently conducted and as it is proposed to be conducted);

c. any material change or amendment to a material contract or arrangement by which the Company or any of its assets or properties is bound or subject;

d. any declaration, setting aside or payment or other distribution in respect of any of the Company's capital stock, or any direct or indirect redemption, purchase or other acquisition of any of such stock by the Company;

e. any sale, assignment or transfer of any patents, trademarks, copyrights, trade secrets or other intangible assets, except the sale by the Company of certain assets, including equipment, inventory and intellectual property rights pursuant to a Asset purchase Agreement, dated as of May 1, 2009, between the Company and Continental Carbon Nanotechnologies;

f. to the Company's knowledge, any other event or condition of any character that might materially and adversely affect the assets, properties, financial condition, operating results or business of the Company (as such business is presently conducted and as it is proposed to be conducted); or

g. any agreement or commitment by the Company to do any of the things described in this Section 2.26.

3. Representations and Warranties of Investor. Investor hereby represents, warrants and covenants to the Company that:

3.1 Authorization. Investor has full power and authority to enter into this Agreement and the Related Agreements to which it is a party, and each such agreement constitutes its valid and legally binding obligation, enforceable in accordance with its terms except (i) as limited by applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies, and (iii) to the extent the indemnification provisions contained in the Related Agreements may be limited by applicable federal or state securities laws.

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

3.3 Disclosure of Information. Investor believes it has received all the information it considers necessary or appropriate for deciding whether to purchase the Shares. Investor further represents that it has had an opportunity to ask questions and receive answers from the Company

regarding the terms and conditions of the offering of the Shares and the business, properties, prospects and financial condition of the Company. The foregoing, however, does not limit or modify the representations and warranties of the Company in Section 2 of this Agreement or the right of Investor to rely thereon.

3.4 Investment Experience. Investor is an investor in securities of companies in the development stage and acknowledges that he/she/it is able to bear the economic risk of its investment, and has such knowledge and experience in financial or business matters that it is capable of evaluating the merits and risks of the investment in the Shares. If other than an individual, Investor also represents it has not been organized for the purpose of acquiring the Shares.

3.5 Accredited Investor. Investor is an "accredited investor" within the meaning of SEC Rule 501 of Regulation D. All of the information in the Investor Questionnaire delivered by Investor to the Company in connection with Investor's purchase of the Shares remains complete, true and correct as of the Closing or the Additional Closing, as applicable.

3.6 Restricted Securities. Investor understands that the Shares it is purchasing are characterized as "restricted securities" under the federal securities laws inasmuch as they are being acquired from the Company in a transaction not involving a public offering, and that under such laws and applicable regulations, such Shares may be resold without registration under the Act only in certain limited circumstances. In the absence of an effective registration statement covering the Shares or an available exemption from registration under the Act, the Shares (and any Common Stock issued on conversion of the Shares) must be held indefinitely.

3.7 No Brokers. Investor has not taken any action which would give rise to any claim by any person for brokerage commissions, finder's fees or similar payments relating to this Agreement or the transactions contemplated hereby.

3.8 Legends. It is understood that the certificates evidencing the Shares may bear one or all of the following legends:

(a) "These securities have not been registered under the Securities Act of 1933, as amended. They may not be sold, offered for sale, pledged or hypothecated in the absence of a registration statement in effect with respect to the securities under such Act or an opinion of counsel satisfactory to the Company that such registration is not required or unless sold pursuant to Rule 144 of such Act."

(b) Legends required to indicate that the Shares are subject to the terms of the Investors Rights Agreement and ROFR Agreement.

(c) Any legend required by applicable laws.

4. Optional Conversion of the Shares.

4.1 Optional Conversion. Investor shall have the right, by giving notice thereof to the Company pursuant to this Section 4, to convert all (but not less than all) of the outstanding Shares held by the Investor (and purchased under this Agreement) into shares of the Company's Qualified Stock (as defined below), pursuant to the provisions of this Section 4 concurrently with the closing of a Qualified Transaction (as defined below)(or the first closing in a series of closings).

4.2 Qualified Transaction. A "***Qualified Transaction***" shall mean the Company's receipt of at least $2,500,000 in proceeds from: (i) a sale by the Company, in one or more related transactions, of a new series of preferred stock (the "***Qualified Stock***") in a financing event (the "***Qualified***

Financing"); or (ii) a combination of (a) a sale of Qualified Stock as described in Section 4.2(i), and (b) the sale by the Company of some or all of its assets and/or business operations in materials for anti-static polymers.

4.3 Notice. The Company shall provide the Investor with a notice no later than 15 business days prior to the closing of the Qualified Transaction indicating the proposed closing date, together with the terms and conditions of the Qualified Transactions, the rights, preferences and privileges of the Qualified Stock and the conversion calculation determined in accordance with Section 4.4 below. Each Investor shall have the right to exercise its rights to convert its Shares into the Qualified Stock under Section 4.1 by giving notice thereof to the Company no later than 5 business days prior to the proposed closing date.

4.4 Conversion Calculation. In connection with a Qualified Transaction, the Shares shall be converted into Qualified Stock in accordance with the following formula:

A = B * [(C ÷ D) * E]

A = the number of shares of Qualified Stock issuable to Investor in connection with the Qualified Transaction;

B = the number of Shares purchased by Investor pursuant to this Agreement;

C = $1.80;

D = the price per share at which the Qualified Stock is sold to investors in the Qualified Financing; and

E = 1.10.

For the avoidance of doubt, the calculation in this Section 4.3 shall be performed in the following order: (i) divide C by D, (ii) multiply the amount in (i) by E, and (iii) multiply the amount in (ii) by B.

4.5 Deliverables. Upon any conversion of Shares under this Section 4, the Investor will execute and deliver to the Company, at the closing of such Qualified Financing, such stock purchase agreement, investors' rights agreement, co-sale agreement, voting and/or other agreements as are entered into by the investors in the Qualified Financing generally. The Company shall not be obligated to issue certificates evidencing the shares of Qualified Stock issuable upon conversion unless the certificates evidencing the Shares are either delivered to the Company or its transfer agent, or the Investor notifies the Company or its transfer agent that such certificates have been lost, stolen or destroyed and executes an agreement satisfactory to the Company to indemnify the Company from any loss incurred by it in connection with such certificates. Upon the occurrence of such conversion of the Shares, the Investor shall surrender the certificates representing such Shares at the office of the Company or any transfer agent for the Company's capital stock. Thereupon, there shall be issued and delivered to the Investor promptly at such office and in its name as shown on such surrendered certificate or certificates, a certificate or certificates for the number of shares of Qualified Stock into which the Shares surrendered were convertible on the date on which such automatic conversion occurred.

5. Conditions to Investor's Obligations at Closing. The following conditions must be satisfied by the Company, unless waived by Investor, in Investor's sole and absolute discretion.

5.1 Representations and Warranties. The representations and warranties of the Company contained in Section 2 shall be true on and as of the Closing with the same effect as though such representations and warranties had been made on and as of the date of the Closing.

5.2 Performance. The Company shall have performed and complied with all agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by it on or before the Closing.

5.3 Qualifications. All authorizations, approvals or permits, if any, of any governmental authority or regulatory body of the United States or of any state that are required in connection with the lawful issuance and sale of the Shares pursuant to this Agreement shall be duly obtained and effective, other than such authorizations, approvals or permits or other filings which may be timely made after such issuance and sale of the Shares.

5.4 Amendment to Restated Certificate. The Company shall have filed the Certificate of Amendment of Restated Certificate in the form attached hereto as Exhibit D-2 with the Delaware Secretary of State.

5.5 Proceedings and Documents. All corporate and other proceedings in connection with the transactions contemplated at the Closing and all documents incident thereto shall be reasonably satisfactory in form and substance to Investor, and Investor shall have received all such counterpart original and certified or other copies of such documents as may be reasonably requested.

5.6 General. The holders of Common Stock and/or Preferred Stock shall have amended any other agreement or arrangement, or given any further consent required to allow the Company to execute and perform this Agreement and the Related Agreements.

6. Conditions to the Company's Obligations at Closing. The following conditions must be satisfied by Investor, unless waived in writing by the Company, in the Company's sole and absolute discretion.

6.1 Representations and Warranties. The representations and warranties of the Investor contained in Section 3 shall be true on and as of the Closing or the Additional Closing (as applicable) with the same effect as though such representations and warranties had been made on and as of the date of such closing.

6.2 Payment of the Purchase Price. Investor shall have delivered to the Company the purchase price for the Shares.

6.3 Securities Exemptions. The offer and sale of the Shares to Investor pursuant to this Agreement shall be exempt from the registration requirements of the Act, the qualification requirements of the California General Corporation Law and the registration and/or qualification requirements of all other applicable state securities laws.

6.4 Proceedings and Documents. All corporate and other proceedings in connection with the transactions contemplated at the Closing or the Additional Closing (as applicable) and all documents incident thereto shall be reasonably satisfactory in form and substance to the Company, and the Company shall have received all such counterpart original and certified or other copies of such documents as may be reasonably requested.

7. Miscellaneous.

7.1 Survival. The warranties, representations and covenants of the Company and Investor contained in or made pursuant to this Agreement shall survive the execution and delivery of this Agreement and the Closing or the Additional Closing (as applicable) and shall in no way be affected by any investigation of the subject matter thereof made by or on behalf of Investor or the Company.

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

7.3 Governing Law. This Agreement shall be governed by and construed under the laws of the State of California as applied to agreements among California residents entered into and to be performed entirely within California, except with respect to conflict of laws.

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

7.5 Notices. All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (i) upon personal delivery to the party to be notified, (ii) when sent by confirmed telex or facsimile if sent during normal business hours of the recipient, if not, then on the next business day; (iii) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (iv) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the address as set forth on the signature page hereof or at such other address as such party may designate by ten (10) days' advance written notice to the other parties hereto.

7.6 Responsibility for Brokers Fees. Investor indemnifies and holds harmless the Company from any liability for any commission or compensation in the nature of a finders' fee (and the costs and expenses of defending against such liability or asserted liability) for which Investor or any of its officers, partners, employees or representatives is responsible. The Company indemnifies and holds harmless Investor from any liability for any commission or compensation in the nature of a finders' fee (and the costs and expenses of defending against such liability or asserted liability) for which the Company or any of its officers, employees or representatives is responsible.

7.7 Aggregation of Stock. All issued and outstanding shares of the Series C-1 Preferred Stock and Common Stock issued upon conversion thereof held or acquired by affiliated entities or persons shall be aggregated together for the purpose of determining the availability of any rights under this Agreement.

7.8 Amendments and Waivers. Any term of this Agreement may be amended, and the observance of any term of this Agreement may be waived (either generally or in a particular instance and either retroactively or prospectively), only with the written consent of the Company and Investor.

7.9 Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, such provision shall be excluded from this Agreement and the balance of the Agreement shall be interpreted as if such provision were so excluded and shall be enforceable in accordance with its terms.

7.10 Entire Agreement. This Agreement and the documents referred to herein constitute the entire agreement among the parties, and this Agreement supersedes all prior written and oral agreements, and all contemporaneous written and oral agreements, relating to the subject matter hereof.

7.11 Counterparts; Facsimile/PDF Signatures. This Agreement may be executed in two or more counterparts, and by facsimile signatures or portable document format (.pdf or similar format), each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

[SIGNATURE PAGE FOLLOWS]

[Company Signature Page to Subscription Agreement]

Dated: JULY 30, 2009

COMPANY:

UNIDYM, INC.
a Delaware corporation

By: /S/ MARK TILLEY
Mark Tilley
CEO & President

Address: 1430 Obrien Drive
Menlo Park, CA 94025

I HEREBY REPRESENT THAT I HAVE READ AND UNDERSTOOD THE SUBSCRIPTION AGREEMENT.

Dated: JULY 30, 2009

Subscription: I hereby subscribe for the following number of Shares at the Purchase Price indicated:

Total Number of Shares: 291,667

Total Purchase Price ($1.80 Per Share): payable as follows: $525,000 in cash.

Arrowhead Research Corporation
Please print the exact name(s) in which the Shares will be issued

Print Name of Signer: Christopher Anzalone

Signature: Christopher Anzalone

Title of Signer (if purchaser is an entity): Chief Executive Officer

Exhibit 31.1

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

I, Christopher Anzalone, certify that:

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

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

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

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

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

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

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

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

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

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

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

Date: August 10, 2009

/S/ CHRISTOPHER ANZALONE

Christopher Anzalone
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

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

I, Paul C. McDonnel, certify that:

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

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

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

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

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

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

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

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

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

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

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

Date: August 10, 2009

/S/ PAUL C. MCDONNEL

Paul C. McDonnel
Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

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

I, Christopher Anzalone, Chief Executive Officer of Arrowhead Research Corporation (the "Company"), certify, pursuant to Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350, that (i) the Quarterly Report on Form 10-Q of the Company for the quarterly period ended June 30, 2009 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and (ii) the information contained in such Quarterly Report on Form 10-Q fairly presents in all material respects the financial condition and results of operations of the Company.

Date: August 10, 2009

/S/ CHRISTOPHER ANZALONE

Christopher Anzalone
Chief Executive Officer
Principal Executive Officer

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

Exhibit 32.2

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

I, Paul C. McDonnel, Chief Financial Officer of Arrowhead Research Corporation (the "Company"), certify, pursuant to Rule 13(a)-14(b) or Rule 15(d)-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350, that (i) the Quarterly Report on Form 10-Q of the Company for the quarterly period ended June 30, 2009 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and (ii) the information contained in such Quarterly Report on Form 10-Q fairly presents in all material respects the financial condition and results of operations of the Company.

Date: August 10, 2009

/S/ PAUL C. MCDONNEL

Paul C. McDonnel
Chief Financial Officer
(Principal Financial and Accounting Officer)

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