

**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 December 31, 2015

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

Commission file number 000-21898

**ARROWHEAD RESEARCH CORPORATION**

(Exact name of registrant as specified in its charter)

Delaware  
(State of incorporation)

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

225 S. Lake Avenue, Suite 1050  
Pasadena, California 91101  
(626) 304-3400

(Address and telephone number of principal executive offices)

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

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

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

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

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

The number of shares of the registrant's common stock outstanding as of February 5, 2016 was 59,627,499.

	<u>Page(s)</u>
<b><u>PART I — FINANCIAL INFORMATION</u></b>	
<u>ITEM 1. FINANCIAL STATEMENTS (unaudited)</u>	1
<u>Consolidated Balance Sheets</u>	1
<u>Consolidated Statements of Operations</u>	2
<u>Consolidated Statement of Stockholders' Equity</u>	3
<u>Consolidated Statements of Cash Flows</u>	4
<u>Notes to Consolidated Financial Statements</u>	5
<u>ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	17
<u>ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	24
<u>ITEM 4. CONTROLS AND PROCEDURES</u>	24
<b><u>PART II — OTHER INFORMATION</u></b>	
<u>ITEM 1. LEGAL PROCEEDINGS</u>	25
<u>ITEM 1A. RISK FACTORS</u>	25
<u>ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS</u>	25
<u>ITEM 3. DEFAULTS UPON SENIOR SECURITIES</u>	25
<u>ITEM 4. MINE SAFETY DISCLOSURES</u>	25
<u>ITEM 5. OTHER INFORMATION</u>	25
<u>ITEM 6. EXHIBITS</u>	26
<u>SIGNATURE</u>	27

---

## ITEM 1. FINANCIAL STATEMENTS

**Arrowhead Research Corporation**  
**Consolidated Balance Sheets**

	(unaudited)	
	December 31, 2015	September 30, 2015
<b>ASSETS</b>		
<b>CURRENT ASSETS</b>		
Cash and cash equivalents	\$ 62,165,088	\$ 81,214,354
Prepaid expenses	3,783,344	3,293,285
Other current assets	1,903,884	823,620
Short term investments	14,431,498	17,539,902
<b>TOTAL CURRENT ASSETS</b>	<b>82,283,814</b>	<b>102,871,161</b>
Property and equipment, net	4,666,411	4,526,848
Intangible assets, net	24,385,125	24,824,116
Other assets	45,789	45,789
<b>TOTAL ASSETS</b>	<b>\$ 111,381,139</b>	<b>\$ 132,267,914</b>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
<b>CURRENT LIABILITIES</b>		
Accounts payable	\$ 5,288,922	\$ 5,031,706
Accrued expenses	3,920,312	5,376,119
Accrued payroll and benefits	1,419,423	3,824,062
Deferred revenue	109,375	103,125
Derivative liabilities	1,325,128	1,301,604
Capital lease obligation	218,447	217,548
Other current liabilities	46,407	46,407
<b>TOTAL CURRENT LIABILITIES</b>	<b>12,328,014</b>	<b>15,900,571</b>
<b>LONG-TERM LIABILITIES</b>		
Capital lease obligation, net of current portion	485,842	540,792
Contingent consideration obligations	5,862,464	5,862,464
Other non-current liabilities	336,427	342,453
<b>TOTAL LONG-TERM LIABILITIES</b>	<b>6,684,733</b>	<b>6,745,709</b>
Commitments and contingencies		
<b>STOCKHOLDERS' EQUITY</b>		
Arrowhead Research Corporation stockholders' equity:		
Preferred stock, \$0.001 par value; 5,000,000 shares authorized; 15,652 shares issued and outstanding as of December 31, 2015 and September 30, 2015	16	16
Common stock, \$0.001 par value; 145,000,000 shares authorized; 59,627,499 and 59,544,677 shares issued and outstanding as of December 31, 2015 and September 30, 2015, respectively	151,997	151,914
Additional paid-in capital	428,838,629	426,873,358
Accumulated other comprehensive income (loss)	(90,607)	(136,425)
Accumulated deficit	(335,976,455)	(316,712,041)
Total Arrowhead Research Corporation stockholders' equity	92,923,580	110,176,822
Noncontrolling interest	(555,188)	(555,188)
<b>TOTAL STOCKHOLDERS' EQUITY</b>	<b>92,368,392</b>	<b>109,621,634</b>
<b>TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY</b>	<b>\$ 111,381,139</b>	<b>\$ 132,267,914</b>

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

**Arrowhead Research Corporation**  
**Consolidated Statements of Operations**  
(unaudited)

	Three Months ended December 31, 2015	Three Months ended December 31, 2014
<b>REVENUE</b>	<b>\$ 43,750</b>	<b>\$ 170,750</b>
<b>OPERATING EXPENSES</b>		
Research and development	10,338,833	17,744,312
Salaries and payroll-related costs	3,919,886	3,150,617
General and administrative expenses	1,951,609	2,086,202
Stock-based compensation	2,380,343	2,014,856
Depreciation and amortization	794,349	290,039
<b>TOTAL OPERATING EXPENSES</b>	<b>19,385,020</b>	<b>25,286,026</b>
<b>OPERATING LOSS</b>	<b>(19,341,270)</b>	<b>(25,115,276)</b>
<b>OTHER INCOME (EXPENSE)</b>		
Gain (loss) on sale of fixed assets, net	-	(26,381)
Interest income (expense), net	100,380	237,417
Change in value of derivatives	(23,524)	2,382,142
Other income (expense)	-	(53,184)
<b>TOTAL OTHER INCOME (EXPENSE)</b>	<b>76,856</b>	<b>2,539,994</b>
<b>LOSS BEFORE INCOME TAXES</b>	<b>(19,264,414)</b>	<b>(22,575,282)</b>
Provision for income taxes	-	-
<b>NET LOSS</b>	<b>(19,264,414)</b>	<b>(22,575,282)</b>
Net loss attributable to non-controlling interests	-	-
<b>NET LOSS ATTRIBUTABLE TO ARROWHEAD</b>	<b>\$ (19,264,414)</b>	<b>\$ (22,575,282)</b>
<b>NET LOSS PER SHARE ATTRIBUTABLE TO ARROWHEAD</b>		
SHAREHOLDERS - BASIC & DILUTED:	<b>\$ (0.32)</b>	<b>\$ (0.41)</b>
Weighted average shares outstanding - basic and diluted	59,548,672	54,692,392
<b>OTHER COMPREHENSIVE INCOME (LOSS), NET OF TAX</b>		
Foreign Currency Translation Adjustments	45,818	-
<b>COMPREHENSIVE LOSS ATTRIBUTABLE TO ARROWHEAD</b>	<b>\$ (19,218,596)</b>	<b>\$ (22,575,282)</b>

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

**Arrowhead Research Corporation**  
**Consolidated Statement of Stockholders' Equity**  
(unaudited)

	<u>Preferred Stock</u>	<u>Amount (\$)</u>	<u>Common Stock</u>	<u>Amount (\$)</u>	<u>Additional Paid-In Capital</u>	<u>Accumulated Other Comprehensive Income (loss)</u>	<u>Accumulated Deficit</u>	<u>Non- controlling Interest</u>	<u>Totals</u>
<b>Balance at September 30, 2015</b>	15,652	\$ 16	59,544,677	\$ 151,914	\$ 426,873,358	\$ (136,425)	\$ (316,712,041)	\$ (555,188)	\$ 109,621,634
Exercise of stock options	-	-	4,687	5	25,539	-	-	-	25,544
Stock-based compensation	-	-	-	-	2,380,343	-	-	-	2,380,343
Common stock- Restricted Stock Unit vesting	-	-	78,135	78	(440,611)	-	-	-	(440,533)
Foreign currency translation adjustments	-	-	-	-	-	45,818	-	-	45,818
Net loss for the three months ended December 31, 2015	-	-	-	-	-	-	(19,264,414)	-	(19,264,414)
<b>Balance at December 31, 2015</b>	<u>15,652</u>	<u>\$ 16</u>	<u>59,627,499</u>	<u>\$ 151,997</u>	<u>\$ 428,838,629</u>	<u>\$ (90,607)</u>	<u>\$ (335,976,455)</u>	<u>\$ (555,188)</u>	<u>\$ 92,368,392</u>

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

**Arrowhead Research Corporation**  
**Consolidated Statements of Cash Flows**  
**(unaudited)**

	<b>Three months ended December 31, 2015</b>	<b>Three months ended December 31, 2014</b>
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Net loss	\$ (19,264,414)	\$ (22,575,282)
(Gain) loss on disposal of fixed assets	-	26,381
Change in value of derivatives	23,524	(2,382,142)
Stock-based compensation	2,380,343	2,014,856
Depreciation and amortization	794,349	290,039
Amortization of note premiums	108,403	347,703
Changes in operating assets and liabilities:		
Receivables	(1,054,719)	(136,506)
Prepaid expenses	(490,057)	(3,874,051)
Accounts payable	257,216	3,415,473
Accrued expenses	(3,945,503)	(1,325,675)
Other	42,789	(802)
<b>NET CASH USED IN OPERATING ACTIVITIES</b>	<b>(21,148,069)</b>	<b>(24,200,006)</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Purchases of property and equipment	(406,612)	(554,945)
Proceeds from sale of fixed assets	-	500
Proceeds from sale of marketable securities	3,000,000	3,054,774
Cash paid for acquisitions	-	(7,000,000)
<b>NET CASH PROVIDED BY (USED IN) INVESTING ACTIVITIES</b>	<b>2,593,388</b>	<b>(4,499,671)</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>		
Principal payments on capital leases and notes payable	(54,051)	(103,168)
Payments of taxes for net share settled restricted stock unit issuances	(440,534)	-
Proceeds from the exercise of warrants and stock options	-	283,466
<b>NET CASH PROVIDED BY (USED IN) FINANCING ACTIVITIES</b>	<b>(494,585)</b>	<b>180,298</b>
<b>NET INCREASE (DECREASE) IN CASH</b>	<b>(19,049,266)</b>	<b>(28,519,379)</b>
<b>CASH AT BEGINNING OF PERIOD</b>	<b>81,214,354</b>	<b>132,510,610</b>
<b>CASH AT END OF PERIOD</b>	<b>\$ 62,165,088</b>	<b>\$ 103,991,231</b>
<b>Supplementary disclosures:</b>		
Interest paid	\$ 3,054	\$ 3,938

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

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

Unless otherwise noted, (1) the term “Arrowhead” refers to Arrowhead Research Corporation, a Delaware corporation, (2) the terms the “Company,” “we,” “us,” and “our,” refer to the ongoing business operations of Arrowhead and its Subsidiaries, whether conducted through Arrowhead or a subsidiary of Arrowhead, (3) the term “Subsidiaries” refers collectively to Arrowhead Madison Inc. (“Arrowhead Madison”), Arrowhead Australia Pty Ltd (“Arrowhead Australia”) and Ablaris Therapeutics, Inc. (“Ablaris”), (4) the term “Common Stock” refers to Arrowhead’s Common Stock, (5) the term “Preferred Stock” refers to Arrowhead’s Preferred Stock and the term “Stockholder(s)” refers to the holders of Arrowhead Common Stock.

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

*Nature of Business*

Arrowhead Research develops novel drugs to treat intractable diseases by silencing the genes that cause them. Using the industry’s broadest portfolio of RNA chemistries and efficient modes of delivery, Arrowhead therapies trigger the RNA interference mechanism to induce rapid, deep and durable knockdown of target genes. RNA interference (RNAi) is a mechanism present in living cells that inhibits the expression of a specific gene, thereby affecting the production of a specific protein. Deemed to be one of the most important recent discoveries in life science with the potential to transform medicine, the discoverers of RNAi were awarded a Nobel Prize in 2006 for their work. Arrowhead’s RNAi-based therapeutics leverage this natural pathway of gene silencing to target and shut down specific disease causing genes.

*Liquidity*

Historically, the Company’s primary source of financing has been through the sale of its securities. Research and development activities have required significant capital investment since the Company’s inception. We expect our operations to continue to require cash investment to pursue our research and development goals, including clinical trials and related drug manufacturing. Based upon the Company’s current cash resources and operating plan, the Company expects to have sufficient liquidity to fund operations for at least the next twelve months.

At December 31, 2015, the Company had \$62.2 million in cash to fund operations. In addition to its cash resources, the Company has invested excess cash in investment grade commercial bonds maturing in less than 12 months. These bonds provide a source of liquidity, though the Company plans to hold them until maturity. At December 31, 2015, the Company had invested \$14.4 million in bonds. During the three months ended December 31, 2015, the Company’s cash position decreased by \$19.0 million which was primarily the result of cash outflows related to operating activities of \$21.1 million, partially offset by maturities of fixed income investments totaling \$3.0 million.

*Summary of Significant Accounting Policies*

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

**Basis of Presentation and Use of Estimates**—The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. In the opinion of management, all adjustments, consisting of normal recurring accruals, considered necessary for a fair presentation have been included. Actual results could materially differ from those estimates. Additionally, certain reclassifications have been made to prior period financial statements to conform to the current period presentation.

**Cash and Cash Equivalents**—The Company considers all liquid debt instruments purchased with a maturity of three months or less to be cash equivalents. The Company had no restricted cash at December 31, 2015 and September 30, 2015.

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

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

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

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

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

The Company classifies its investments in marketable debt securities based on the facts and circumstances present at the time of purchase of the securities. At December 31, 2015, the Company classified all of its investments as held-to-maturity.

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

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

Intangible Assets Subject to Amortization—At December 31, 2015, intangible assets subject to amortization include certain patents and license agreements. Intangible assets subject to amortization are reviewed for impairment whenever events or circumstances indicate that the carrying amount of these assets may not be recoverable.

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



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

Revenue Recognition—Revenue from license fees are recorded when persuasive evidence of an arrangement exists, title has passed or services have been rendered, a price is fixed and determinable, and collection is reasonably assured. The Company 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.

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

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

Research and Development—Costs and expenses that can be clearly identified as research and development are charged to expense as incurred in accordance with FASB ASC 730-10. Included in research and development costs are operating costs, facilities, supplies, external services, clinical trial and manufacturing costs, overhead directly related to the Company's research and development operations, and costs to acquire technology licenses.

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 and restricted stock units issued to employees and warrants to purchase Common Stock of the Company. All outstanding stock options, restricted stock units and warrants for the three months ended December 31, 2015 and 2014 have been excluded from the calculation of Diluted earnings (loss) per share due to their anti-dilutive effect.

Stock-Based Compensation—The Company accounts for share-based compensation arrangements in accordance with FASB ASC 718, which requires the measurement and recognition of compensation expense for all share-based payment awards to be based on estimated fair values. The Company uses the Black-Scholes option valuation model to estimate the fair value of its stock options at the date of grant. The Black-Scholes option valuation model requires the input of subjective assumptions to calculate the value of stock options. For restricted stock units, the value of the award is based on the Company's stock price at the grant date. For performance-based restricted stock unit awards, the value of the award is based on the Company's stock price at the grant date, with consideration given to the probability of the performance condition being achieved. The Company uses historical data and other information to estimate the expected price volatility for stock option awards and the expected forfeiture rate for all awards. Expense is recognized over the vesting period for all awards, and commences at the grant date for time-based awards and upon our determination that the achievement of such performance conditions is probable for performance-based awards. This determination requires significant judgment by management.

Derivative Assets and Liabilities – The Company accounts for warrants and other derivative financial instruments as either equity or assets/liabilities based upon the characteristics and provisions of each instrument. Warrants classified as equity are recorded as additional paid-in capital on the Company’s Consolidated Balance Sheet. Some of the Company’s warrants were determined to be ineligible for equity classification because of provisions that may result in an adjustment to their exercise price. Warrants classified as derivative liabilities and other derivative financial instruments that require separate accounting as assets or liabilities are recorded on the Company’s Consolidated Balance Sheet at their fair value on the date of issuance and are revalued on each subsequent balance sheet date until such instruments are exercised or expire, with any changes in the fair value between reporting periods recorded as other income or expense. The Company estimates the fair value of these assets/liabilities using option pricing models that are based on the individual characteristics of the warrants or instruments on the valuation date, as well as assumptions for expected volatility, expected life and risk-free interest rate.

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

**NOTE 2. PROPERTY AND EQUIPMENT**

The following table summarizes our major classes of property and equipment:

	<u>December 31, 2015</u>	<u>September 30, 2015</u>
Computers, office equipment and furniture	\$ 413,565	\$ 404,964
Research equipment	6,783,831	6,354,584
Software	110,428	110,428
Leasehold improvements	3,167,053	3,117,537
Total gross fixed assets	<u>10,474,877</u>	<u>9,987,513</u>
Less: Accumulated depreciation and amortization	(5,808,466)	(5,460,665)
Property and equipment, net	<u>\$ 4,666,411</u>	<u>\$ 4,526,848</u>

**NOTE 3. INVESTMENTS**

The Company invests a portion of its excess cash balances in short-term and long-term debt securities. Investments at December 31, 2015 consisted of corporate bonds with maturities remaining of less than one year. The Company may also invest excess cash balances in certificates of deposit, money market accounts, U.S. Treasuries, U.S. government agency obligations, corporate debt securities, and/or commercial paper. The Company accounts for its investments in accordance with FASB ASC 320, Investments – Debt and Equity Securities. At December 31, 2015, all investments were classified as held-to-maturity securities.

The following tables summarize the Company’s short- and long-term investments as of December 31, 2015, and September 30, 2015.

	<u>As of December 31, 2015</u>			
	<u>Amortized Cost</u>	<u>Gross Unrealized Gains</u>	<u>Gross Unrealized Losses</u>	<u>Fair Value</u>
Commercial notes (due within one year)	\$ 14,431,498	\$ —	\$ (159,605)	\$ 14,271,893
Commercial notes (due after one year through two years)	\$ —	\$ —	\$ —	\$ —
Total	<u>\$ 14,431,498</u>	<u>\$ —</u>	<u>\$ (159,605)</u>	<u>\$ 14,271,893</u>

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Commercial notes (due within one year)	\$ 17,539,902	\$ —	\$ (304,942)	\$ 17,234,960
Commercial notes (due after one year through two years)	\$ —	\$ —	\$ —	\$ —
Total	\$ 17,539,902	\$ —	\$ (304,942)	\$ 17,234,960

#### NOTE 4. INTANGIBLE ASSETS

Intangible assets consist of in-process research and development (“IPR&D”) not subject to amortization, and patents and license agreements subject to amortization, which were capitalized as a part of an asset acquisition or business combination.

IPR&D represents projects that have not yet received regulatory approval and are required to be classified as indefinite assets until the successful completion or the abandonment of the associated R&D efforts. Accordingly, during the development period after the date of acquisition, these assets will not be amortized until approval is obtained in one or more jurisdictions which, individually or combined, are expected to generate a significant portion of the total revenue expected to be earned by an IPR&D project. At that time, the Company will determine the useful life of the asset, reclassify the asset out of IPR&D and begin amortization. If the associated R&D effort is abandoned the related IPR&D assets will likely be written off and the Company would record an impairment loss. Intangible assets not subject to amortization include IPR&D capitalized as part of a business combination from the acquisition of the Roche RNAi business in 2011.

Intangible assets subject to amortization include patents and a license agreement capitalized as part of the Novartis RNAi asset acquisition in March 2015 and license agreements capitalized from the acquisition of the Roche RNAi business in 2011. The license agreement associated with the Novartis RNAi asset acquisition is being amortized over the estimated life remaining at the time of acquisition which was 21 years, and the accumulated amortization of the asset is approximately \$123,671. The license agreements associated with the acquisition of the Roche RNAi business were amortized over the estimated life remaining at the time of acquisition, which was 4 years, and the accumulated amortization of the assets is approximately \$230,000. These assets have been fully amortized as of December 31, 2015. The patents associated with the Novartis RNAi asset acquisition are being amortized over the estimated life remaining at the time of acquisition which was 14 years, and the accumulated amortization of the assets is approximately \$1,293,353. Amortization expense for the three months ended December 31, 2015 and 2014 was \$438,991 and \$13,664, respectively. Amortization expense is expected to be approximately \$1,275,322 for the remainder of fiscal year 2016, \$1,700,429 in 2017, \$1,700,429 in 2018, \$1,700,429 in 2019, \$1,700,429 in 2020, \$1,700,429 in 2021, and \$13,662,723 thereafter.

The following table provides details on the Company’s intangible asset balances:

	Intangible assets not subject to amortization	Intangible assets subject to amortization	Total Intangible assets
Balance at September 30, 2015	\$ 944,935	\$ 23,879,181	\$ 24,824,116
Amortization	-	(438,991)	(438,991)
Balance at December 31, 2015	\$ 944,935	\$ 23,440,190	\$ 24,385,125

#### NOTE 5. STOCKHOLDERS’ EQUITY

At December 31, 2015, the Company had a total of 150,000,000 shares of capital stock authorized for issuance, consisting of 145,000,000 shares of Common Stock, par value \$0.001 per share, and 5,000,000 shares of Preferred Stock, par value \$0.001 per share.

At December 31, 2015, 59,627,499 shares of Common Stock were outstanding. Additionally, 15,652 shares of Series C Preferred Stock were outstanding, which are convertible into 2,670,990 shares of Common Stock. At December 31, 2015, 7,945,090 shares of Common Stock were reserved for issuance upon exercise of options and vesting of restricted stock units granted or available for grant under Arrowhead’s 2004 Equity Incentive Plan and 2013 Incentive Plan, as well as for inducement grants made to new employees.

The Preferred Stock is convertible to Common Stock by its holder at its stated conversion price, though it is not convertible to the extent the holder would beneficially own more than 9.99% of the number of shares of outstanding Common Stock immediately after the conversion. The holders of Preferred Stock are eligible to vote with the Common Stock of the Company on an as-converted basis, but only to the extent they are eligible for conversion without exceeding the 9.99% ownership limitation. The Preferred Stock does not carry a coupon, but it is entitled to receive dividends on a pari passu basis with Common Stock, when and if declared. In any liquidation or dissolution of the Company, the holders of Preferred Stock are entitled to participate in the distribution of the assets, to the extent legally available for distribution, on a pari passu basis with the Common Stock.

The following table summarizes information about warrants outstanding at December 31, 2015:

<u>Exercise prices</u>	<u>Number of Warrants</u>	<u>Remaining Life in Years</u>
\$ 70.60	94,897	1.4
\$ 5.00	364,375	0.5
\$ 5.09	239,534	0.5
\$ 4.16	1,000	1.0
\$ 3.25	334,347	0.6
\$ 2.12	75,000	2.0
\$ 1.83	277,284	2.0
\$ 7.14	80,000	2.5
Total warrants outstanding	<u>1,466,437</u>	

#### NOTE 6. COMMITMENTS AND CONTINGENCIES

##### Leases

The Company leases approximately 8,500 square feet of office space for its corporate headquarters in Pasadena, California. The lease will expire in September 2019. Rental costs are approximately \$24,000 per month, increasing approximately 3% annually.

As of December 31, 2015, the Company's research facility in Madison, Wisconsin is leased through February 28, 2019. Monthly rental expense is approximately \$26,000. Other monthly rental expenses include common area maintenance and real estate taxes totaling approximately \$18,000 per month. Utilities costs are approximately \$16,000 per month. Total monthly costs are approximately \$79,000 per month, including monthly payments recorded under a capital lease of approximately \$19,000.

The Company leased additional research facility space in Middleton, Wisconsin, and this space is leased through May 2016. Monthly rental expense for the additional space is approximately \$4,000. Other monthly rental expenses include common area maintenance and real estate taxes totaling approximately \$2,000 per month.

Facility rent expense for the three months ended December 31, 2015 and 2014 was \$198,600 and \$171,500, respectively.

As of December 31, 2015, future minimum lease payments due in fiscal years under capitalized leases are as follows:

2016 (remainder of)	\$ 171,315
2017	228,420
2018	228,420
2019	95,175
2020	-
2021 and thereafter	-
Less interest	(19,041)
Principal	<u>704,289</u>
Less current portion	(218,447)
Noncurrent portion	<u>\$ 485,842</u>

As of December 31, 2015, future minimum lease payments due in fiscal years under operating leases are as follows:

2016 (remainder of)	\$	470,846
2017		613,664
2018		637,897
2019		459,633
2020		-
2021 and thereafter		-
Total	\$	<u>2,182,040</u>

In January 2016, the Company entered into a new lease for a Madison, Wisconsin research facility. This lease will replace the Company's current research facility office leases. The increased capacity of this new facility compared to the current research facilities will accommodate increased research and development personnel for the Company's expanding pipeline of current and future drug candidates. See Footnote 9 – Subsequent Events for additional discussion of this new lease agreement.

#### *Litigation*

The Company and certain of its officers and directors have been named as defendants in a consolidated class action pending before the United States District Court for the Central District of California regarding certain public statements in connection with the Company's hepatitis B drug research. The consolidated class action, initially filed as *Wang v. Arrowhead Research Corp., et al.*, No. 2:14-cv-07890 (C.D. Cal., filed Oct. 10, 2014), and *Eskinazi v. Arrowhead Research Corp., et al.*, No. 2:14-cv-07911 (C.D. Cal., filed Oct. 13, 2014), asserts claims under Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 and seeks damages in an unspecified amount. Additionally, three putative stockholder derivative actions captioned *Weisman v. Anzalone et al.*, No. 2:14-cv-08982 (C.D. Cal., filed Nov. 20, 2014), *Bernstein (Backus) v. Anzalone, et al.*, No. 2:14-cv-09247 (C.D. Cal., filed Dec. 2, 2014); and *Johnson v. Anzalone, et al.*, No. 2:15-cv-00446 (C.D. Cal., filed Jan. 22, 2015), were filed in the United States District Court for the Central District of California, alleging breach of fiduciary duty by the Company's Board of Directors in connection with the facts underlying the securities claims. An additional consolidated derivative action asserting similar claims is pending in Los Angeles County Superior Court, initially filed as *Bacchus v. Anzalone, et al.*, (L.A. Super., filed Mar. 5, 2015); and *Jackson v. Anzalone, et al.* (L.A. Super., filed Mar. 16, 2015). Each of these suits seeks damages in unspecified amounts and some seek various forms of injunctive relief.

The Company and two of its former executives have been named as defendants in a complaint filed on November 11, 2014 and captioned *William Marsh Rice University vs. Unidym, Inc. and Arrowhead Research Corporation*, No. 2014-66088, currently pending in the United States District Court for the Southern District of Texas relating to alleged breaches of a license agreement between Rice University and the Company's former subsidiary, Unidym, Inc. The plaintiff has alleged that the Company and its former executives acted fraudulently with respect to Unidym's license from Rice University and seeks injunctive relief, damages, including unspecified compensatory and punitive damages, and attorneys' fees.

The Company believes it has meritorious defenses and intends to vigorously defend itself in each of the above matters. The Company makes provisions for liabilities when it is both probable that a liability has been incurred and the amount can be reasonably estimated. No such liability has been recorded related to these matters. The Company does not expect these matters to have any material effect on its Consolidated Financial Statements. With regard to legal fees, such as attorney fees related to these matters or any other legal matters, the Company's accounting policy is to recognize such costs as incurred.

#### *Purchase Commitments*

In the normal course of business, we enter into various purchase commitments for the manufacture of drug components, toxicology studies, and for clinical studies. As of December 31, 2015, these future commitments were approximately \$47.5 million, of which approximately \$25.2 million is expected to be incurred in the remainder of fiscal 2016, and \$23.3 million is expected to be incurred beyond fiscal 2016.

## Technology License Commitments

The Company has licensed from third parties the rights to use certain technologies that it uses in its research and development activities, as well as in any products the Company may develop using these licensed technologies. These agreements and other similar agreements often require milestone and royalty payments. Milestone payments, for example, may be required as the research and development process progresses through various stages of development, such as when clinical candidates enter or progress through clinical trials, upon NDA and upon certain sales level milestones. These milestone payments could amount to the mid to upper double digit millions of dollars. In certain agreements, the Company may be required to make mid to high single digit percentage royalty payments based on a percentage of the sales of the relevant products.

## NOTE 7. STOCK-BASED COMPENSATION

Arrowhead has two plans that provide for equity-based compensation. Under the 2004 Equity Incentive Plan and 2013 Incentive Plan, as of December 31, 2015, 2,537,018 and 5,084,284 shares, respectively, of Arrowhead's Common Stock are reserved for the grant of stock options, stock appreciation rights, restricted stock awards and performance unit/share award to employees, consultants and others. No further grants may be made under the 2004 Equity Incentive Plan. As of December 31, 2015, there were options granted and outstanding to purchase 2,537,018 and 2,384,144 shares of Common Stock under the 2004 Equity Incentive Plan and the 2013 Incentive Plan, respectively, and there were 877,500 restricted stock units granted and outstanding under the 2013 Incentive Plan. Also, as of December 31, 2015, there were 544,622 shares reserved for options and 46,667 restricted stock units issued as inducement grants to new employees outside of equity compensation plans. During the three months ended December 31, 2015, no options or restricted stock units were granted under the 2004 Equity Incentive Plan, 82,000 options and 0 restricted stock units were granted under the 2013 Incentive Plan, and no options and restricted stock units were granted as inducement awards to new employees outside of equity incentive plans.

The following tables summarize information about stock options:

	<u>Number of Options Outstanding</u>	<u>Weighted- Average Exercise Price Per Share</u>	<u>Weighted- Average Remaining Contractual Term</u>	<u>Aggregate Intrinsic Value</u>
Balance At September 30, 2015	5,435,640	6.71		
Granted	82,000	5.96		
Cancelled	(47,169)	8.56		
Exercised	(4,687)	5.45		
Balance At December 31, 2015	<u>5,465,784</u>	<u>\$ 6.69</u>	7.6 years	<u>\$ 6,925,846</u>
Exercisable At December 31, 2015	<u>2,956,400</u>	<u>\$ 6.12</u>	6.8 years	<u>\$ 4,766,553</u>

Stock-based compensation expense related to stock options for the three months ended December 31, 2015 and 2014 was \$1,217,217 and \$981,399, respectively. The Company does not recognize an income tax benefit as the Company is currently operating at a loss and an actual income tax benefit may not be realized. For non-qualified stock options, the loss creates a timing difference, resulting in a deferred tax asset, which is fully reserved by a valuation allowance.

The grant date fair value of the options granted by Arrowhead for the three months ended December 31, 2015 and 2014 is estimated at \$365,876 and \$3,596,618, respectively.

The intrinsic value of the options exercised during the three months ended December 31, 2015 and 2014 was \$3,515 and \$23,774, respectively.

As of December 31, 2015, the pre-tax compensation expense for all outstanding unvested stock options in the amount of approximately \$10,850,029 will be recognized in the Company's results of operations over a weighted average period of 2.5 years.

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

The assumptions used to value stock options are as follows:

	<b>Three months ended December 31,</b>	
	<b>2015</b>	<b>2014</b>
Dividend yield	—	—
Risk-free interest rate	1.47 – 1.81%	1.61 – 1.85%
Volatility	89%	75%
Expected life (in years)	6.25	6.25
Weighted average grant date fair value per share of options granted	\$4.46	\$3.66

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

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

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

#### *Restricted Stock Units*

Restricted stock units (RSUs), including time-based and performance-based awards, were granted under the Company's 2013 Incentive Plan and as inducement grants granted outside of the Plan. During the three months ended December 31, 2015 and 2014, the Company issued 0 restricted stock units and 30,000 restricted stock units, respectively, to certain members of management. Of the restricted stock units granted during the three months ended December 31, 2014, 30,000 were granted outside of the Plan as an inducement grant to a new employee. At vesting, each RSU will be exchanged for one share of the Company's Common Stock. Restricted stock unit awards generally vest subject to the satisfaction of service requirements or the satisfaction of both service requirements and achievement of certain performance targets.

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

	<b>Number of RSUs</b>	<b>Weighted- Average Grant Date Fair Value</b>
Unvested at September 30, 2015	934,167	\$ 9.18
Granted	—	—
Vested	(10,000)	5.22
Forfeited	—	—
Unvested at December 31, 2015	<u>924,167</u>	<u>\$ 9.22</u>

The Company recorded \$1,163,126 and \$1,033,457 of expense relating to restricted stock units during the three months ended December 31, 2015 and 2014, respectively. Such expense is included in stock-based compensation expense in the Company's Consolidated Statement of Operations and Comprehensive Loss.

For restricted stock units, the grant date fair value of the award is based on the Company's closing stock price at the grant date, with consideration given to the probability of achieving performance conditions for performance based awards.

As of December 31, 2015, the pre-tax compensation expense for all unvested restricted stock units in the amount of approximately \$2,529,700 will be recognized in the Company's results of operations over a weighted average period of 1.7 years.

#### **NOTE 8. FAIR VALUE MEASUREMENTS**

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

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

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

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

The following table summarizes fair value measurements at December 31, 2015 and September 30, 2015 for assets and liabilities measured at fair value on a recurring basis:

December 31, 2015:

	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	\$ 62,165,088	\$ —	\$ —	\$ 62,165,088
Derivative liabilities	\$ —	\$ —	\$ 1,325,128	\$ 1,325,128
Acquisition-related contingent consideration obligations	\$ —	\$ —	\$ 5,862,464	\$ 5,862,464

September 30, 2015:

	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	\$ 81,214,354	\$ —	\$ —	\$ 81,214,354
Derivative liabilities	\$ —	\$ —	\$ 1,301,604	\$ 1,301,604
Acquisition-related contingent consideration obligations	\$ —	\$ —	\$ 5,862,464	\$ 5,862,464

The Company invests its excess cash balances in short- and long-term corporate bonds, generally with remaining maturities of less than one year. At December 31, 2015, the Company had short-term investments of \$14,431,498. The fair value of its investment at December 31, 2015 was \$14,271,893. The Company expects to hold such investments until maturity, and thus unrealized gains and losses from the fluctuations in the fair value of the securities are not likely to be realized.

As part of a financing in December 2012, Arrowhead issued warrants to purchase up to 912,543 shares of Common Stock (the “2012 Warrants”) of which 265,161 warrants were outstanding at December 31, 2015. Further, as part of a financing in January 2013, Arrowhead issued warrants to purchase up to 833,530 shares of Common Stock (the “2013 Warrants”) and, together with the 2012 Warrants, the “Warrants”) of which 12,123 Warrants were outstanding at December 31, 2015. Each of the Warrants contains a mechanism to adjust the strike price upon the issuance of certain dilutive equity securities. If during the terms of the Warrants, the Company issues Common Stock at a price lower than the exercise price for the Warrants, the exercise price would be reduced to the amount equal to the issuance price of the Common Stock. As a result of these features, the Warrants are subject to derivative accounting as prescribed under ASC 815. Accordingly, the fair value of the Warrants on the date of issuance was estimated using an option pricing model and recorded on the Company’s Consolidated Balance Sheet as a derivative liability. The fair value of the Warrants is estimated at the end of each reporting period and the change in the fair value of the Warrants is recorded as a non-operating gain or loss as change in value of derivatives in the Company’s Consolidated Statement of Operations and Comprehensive Loss. During the three months ended December 31, 2015 and 2014, the Company recorded a non-cash gain/(loss) from the change in fair value of the derivative liability of \$(21,574) and \$2,179,651, respectively. Additionally, As part of an equity financing in June 2010, Arrowhead issued warrants to purchase up to 329,649 shares of Common Stock (the “2010 Warrants”), and the remaining unexercised 24,324 of these warrants expired during the three months ended December 31, 2015.



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

<b>2012 Warrants</b>	<u>December 31, 2015</u>	<u>September 30, 2015</u>
Risk-free interest rate	1.06%	0.6%
Expected life	2.0 Years	2.2 Years
Dividend yield	—	—
Volatility	89%	75%
<b>2013 Warrants</b>	<u>December 31, 2015</u>	<u>September 30, 2015</u>
Risk-free interest rate	1.06%	0.6%
Expected life	2.1 Years	2.3 Years
Dividend yield	—	—
Volatility	89%	75%

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

Value at September 30, 2015	\$	1,272,802
Issuance of instruments		—
Change in value		21,574
Net settlements		—
Value at December 31, 2015	<u>\$</u>	<u>1,294,376</u>

In conjunction with the financing of Ablaris in fiscal 2011, Arrowhead sold exchange rights to certain investors whereby the investors have the right to exchange their shares of Ablaris for a prescribed number of Arrowhead shares of Common Stock based upon a predefined ratio. The exchange rights have a seven-year term. During the first year, the exchange right allows the holder to exchange one Ablaris share for 0.06 Arrowhead shares. This ratio declines to 0.04 in the second year, 0.03 in the third year and 0.02 in the fourth year. In the fifth year and beyond the exchange ratio is 0.01. Exchange rights for 675,000 Ablaris shares were sold in fiscal 2011, and 500,000 remain outstanding at December 31, 2015. The exchange rights are subject to derivative accounting as prescribed under ASC 815. Accordingly, the fair value of the exchange rights on the date of issuance was estimated using an option pricing model and recorded on the Company's Consolidated Balance Sheet as a derivative liability. The fair value of the exchange rights is estimated at the end of each reporting period and the change in the fair value of the exchange rights is recorded as a non-operating gain or loss in the Company's Consolidated Statement of Operations and Comprehensive Loss. During the three months ended December 31, 2015 and 2014, the Company recorded a non-cash gain/(loss) from the change in fair value of the derivative liability of \$(1,950) and \$202,491, respectively.

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

	<u>December 31, 2015</u>	<u>September 30, 2015</u>
Risk-free interest rate	1.00%	1.00%
Expected life	2.2 Years	2.5 Years
Dividend yield	—	—
Volatility	89%	75%

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

Value at September 30, 2015	\$	28,802
Issuance of instruments		—
Change in value		1,950
Net settlements		—
Value at December 31, 2015	<u>\$</u>	<u>30,752</u>

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

As of December 31, 2015, the Company has liabilities for contingent consideration related to its acquisition of the Roche RNAi business completed in 2011. The fair value measurement of the contingent consideration obligations is determined using Level 3 inputs. The fair value of contingent consideration obligations is based on a discounted cash flow model using a probability-weighted income approach. The measurement is based upon unobservable inputs supported by little or no market activity based on the Company's assumptions and experience. Estimating timing to complete the development and obtain approval of products is difficult, and there are inherent uncertainties in developing a product candidate, such as obtaining U.S. Food and Drug Administration (FDA) and other regulatory approvals. In determining the probability of regulatory approval and commercial success, the Company utilizes data regarding similar milestone events from several sources, including industry studies and its own experience. These fair value measurements represent Level 3 measurements as they are based on significant inputs not observable in the market. Significant judgment is employed in determining the appropriateness of these assumptions as of the acquisition date and for each subsequent period. Accordingly, changes in assumptions could have a material impact on the amount of contingent consideration expense the Company records in any given period. Changes in the fair value of the contingent consideration obligations are recorded in the Company's Consolidated Statement of Operations and Comprehensive Loss.

The following is a reconciliation of contingent consideration fair value.

Value at September 30, 2015	\$	5,862,464
Purchase price contingent consideration		—
Contingent consideration payments		—
Change in fair value of contingent consideration		—
Value at December 31, 2015	\$	<u>5,862,464</u>

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

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

#### **NOTE 9. SUBSEQUENT EVENTS**

On January 8, 2016, the Company entered into a new lease for a Madison, Wisconsin research facility. The 10-year office building lease between the Company's subsidiary, Arrowhead Madison Inc. and University Research Park, Incorporated is for approximately 60,000 square feet of office and laboratory space located at 502 South Rosa Road, Madison, Wisconsin, and this lease will replace the Company's current research facility lease also with University Research Park, Incorporated for property located at 465 Science Drive, Madison Wisconsin. The increased capacity of this new facility compared to the Company's current research facilities will accommodate increased research and development personnel for the Company's expanding pipeline of current and future drug candidates.

The initial term of the lease commenced on January 1, 2016 with expected occupancy in late 2016, after certain leasehold improvements have been completed. The lease payments, which begin on October 1, 2016, will be approximately \$15.4 million over the initial 10-year term. We also estimate payments for the Company's pro rata share of certain real estate taxes, operating expenses and common area maintenance expenses to be approximately \$0.9 million for the first year of the lease, and these payments will continue throughout the initial 10-year term. The Company expects to pay approximately \$7.3 million for leasehold improvements, net of tenant improvement allowances. Pursuant to the lease, within six months of the expiration of the initial 10-year term, the Company has the option to extend the lease for up to two additional five-year terms, with certain annual increases in base rent.

Additionally, on January 8, 2016 and in conjunction with signing the new lease agreement as discussed above, the Company entered into an amendment to the Company's current research facility lease for property located at 465 Science Drive Suite C, Madison, Wisconsin with University Research Park, Incorporated that provides for an early termination of such lease effective on October 31, 2016.

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

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

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

### Overview

Arrowhead Research develops novel drugs to treat intractable diseases by silencing the genes that cause them. Using the industry's broadest portfolio of RNA chemistries and efficient modes of delivery, Arrowhead therapies trigger the RNA interference mechanism to induce rapid, deep and durable knockdown of target genes. RNA interference (RNAi) is a mechanism present in living cells that inhibits the expression of a specific gene, thereby affecting the production of a specific protein. Deemed to be one of the most important recent discoveries in life science with the potential to transform medicine, the discoverers of RNAi were awarded a Nobel Prize in 2006 for their work. Arrowhead's RNAi-based therapeutics leverage this natural pathway of gene silencing to target and shut down specific disease causing genes.

Arrowhead operates lab facilities in Madison and Middleton, Wisconsin, where the Company's research and development activities, including the development of RNAi therapeutics, are based. The Company's principal executive offices are located in Pasadena, California.

During the first quarter of fiscal year 2016, the Company continued to develop its lead clinical candidate, ARC-520, for the treatment of chronic hepatitis B as well as its second clinical candidate, ARC-AAT, an RNAi therapeutic designed to treat liver disease associated with Alpha-1 antitrypsin deficiency (AATD). The Company continued its Phase 2 studies in ARC-520, with no dose-limiting toxicities or serious adverse events having been observed to date. In connection with its Phase 2a study, the Company reported data showing that ARC-520 effectively reduced HBV viral antigens derived from cccDNA. The data showed that HBV surface antigen (HBsAg) was reduced substantially with a maximum reduction of 1.9 logs (99%) and a mean maximum reduction of 1.5 logs (96.8%) in treatment naïve e-antigen (HBeAg)-positive patients. The Company also discussed data from an ARC-520 chimpanzee study showing that in chronically HBV-infected chimpanzees treated with ARC-520 in combination with nucleoside analogs, 7 of 9 (78%) exhibited signs of immune reactivation, which is likely a necessary step for achieving a functional cure of chronic HBV. The Company believes these data strongly support advancement of ARC-520 into Phase 2b and future clinical studies. In January 2016, the Company announced that it had dosed the first patient in its Phase 2b combination study for ARC-520 and is continuing to enroll patients at multiple centers in Australia and New Zealand. The Company submitted an Investigational New Drug application to the FDA which was approved in April 2015 and the Company also received regulatory clearance in Germany for two additional Phase 2b multiple-dose studies of ARC-520 to be conducted in parallel. The Company expects to file with additional Asian and European agencies to begin additional Phase 2b studies.

Regarding ARC-AAT, the Company recently completed protocol-required dosing of healthy volunteers in an on-going Phase 1 study and initiated dosing of patients in Part B of that same study. The study recently received regulatory clearance in the United Kingdom, Germany and New Zealand, and is currently recruiting patients at several sites in those countries. In January 2016, the European Medicines Agency (EMA) granted orphan drug designation to ARC-AAT, consistent with the previous designation granted by the FDA.

The Company also continues to progress on its expanded pipeline of additional pre-clinical candidates including ARC-F12, a treatment for factor 12 (F12) mediated angioedemic and thromboembolic diseases, ARC-HIF2, a treatment for clear cell renal cell

carcinoma (ccRCC), ARC-521, a complementary candidate to ARC-520 for the treatment of chronic hepatitis B infection, and ARC-LPA, a treatment designed to reduce production of Lp(a), which has been genetically linked with increased risk of cardiovascular disease.

The Company continues to develop other clinical candidates for future clinical trials, including intravenously-administered therapeutics targeting gene knockdown in the liver, as well as formulations for administering RNAi-based therapeutics by subcutaneous administration. Clinical candidates are tested internally and through GLP toxicology studies at outside laboratories, and drug materials for such studies, and for clinical trials, are contracted to third-party manufacturers when cGMP production is required. The Company engages third-party contract research organizations (CROs) to manage clinical trials and works cooperatively with such organizations on all aspects of clinical trial management, including plan design, patient recruiting, and follow up. These outside costs, relating to the preparation for and administration of clinical trials, are referred to as program costs, and if the clinical candidates progress through human testing, program costs will increase.

In January 2016, the Company entered into a new lease for a Madison, Wisconsin research facility. The 10-year office building lease between the Company's subsidiary, Arrowhead Madison Inc. and University Research Park, Incorporated is for approximately 60,000 square feet of office and laboratory space located at 502 South Rosa Road, Madison, Wisconsin, and this lease will replace the Company's current research facility office lease, also with University Research Park, Incorporated, for property located at 465 Science Drive, Madison Wisconsin. The increased capacity of this new facility compared to the Company's current research facilities will accommodate increased research and development personnel for the Company's expanding pipeline of current and future drug candidates

Net losses were \$19.3 million, and \$22.6 million during the three months ended December 31, 2015 and 2014, respectively. Diluted losses per share were \$0.32, and \$0.41 during the three months ended December 31, 2015 and 2014, respectively.

The Company strengthened its liquidity and financial position through two securities offerings completed in October 2013 and February 2014 which generated approximately \$172.6 million of cash proceeds for the Company. These cash proceeds secured the funding needed to advance both ARC-520 and ARC-AAT into clinical trials and also assist as the Company expands its pipeline of other clinical candidates. The Company had \$62.2 million of cash and cash equivalents, \$14.4 million of short term investments and \$111.4 million of total assets as of December 31, 2015 as compared to \$81.2 million, \$17.5 million and \$132.3 million as of September 30, 2015, respectively. The operating expenses and net losses and decrease in cash and cash equivalents and total assets reflects expenditures associated with the Company's research and development efforts for its clinical candidates and pipeline. Based upon the Company's current cash resources and operating plan, the Company expects to have sufficient liquidity to fund operations for at least the next twelve months.

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

Management makes certain judgments and uses certain estimates and assumptions when applying GAAP 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 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.

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

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

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

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

### *Impairment of Long-lived Assets*

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

### *Impairment of Intangible assets*

Intangible assets consist of in-process research and development, license agreements and patents acquired in conjunction with a business or asset acquisition. Intangible assets are monitored for potential impairment whenever events or circumstances indicate that the carrying amount may not be recoverable, and are also reviewed annually to determine whether any impairment is necessary. Based on ASU 2012-02, the annual review of intangible assets is performed via a two-step process. First, a qualitative assessment is performed to determine if it is more likely than not that the intangible asset is impaired. If required, a quantitative assessment is performed and, if necessary, impairment is recorded.

### *Stock-Based Compensation*

We account for share-based compensation arrangements in accordance with FASB ASC 718, which requires the measurement and recognition of compensation expense for all share-based payment awards to be based on estimated fair values. We use the Black-Scholes option valuation model to estimate the fair value of our stock options at the date of grant. The Black-Scholes option valuation model requires the input of subjective assumptions to calculate the value of stock options. For restricted stock units, the value of the award is based on the Company's stock price at the grant date. For performance-based restricted stock unit awards, the value of the award is based on the Company's stock price at the grant date, with consideration given to the probability of the performance condition being achieved. We use historical data and other information to estimate the expected price volatility for stock option awards and the expected forfeiture rate for all awards. Expense is recognized over the vesting period for all awards, and commences at the grant date for time-based awards and upon our determination that the achievement of such performance conditions is probable for performance-based awards. This determination requires significant judgment by management.

### *Derivative Assets and Liabilities*

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

### *Contingent Consideration*

The consideration for our acquisitions often includes future payments that are contingent upon the occurrence of a particular event. For example, milestone payments might be based on progress of clinical development, the achievement of various regulatory approvals or future sales milestones, and royalty payments might be based on drug product sales levels. The Company records a contingent consideration obligation for such contingent payments at fair value on the acquisition date. The Company estimates the fair value of contingent consideration obligations through valuation models designed to estimate the probability of the occurrence of such contingent payments based on various assumptions and incorporating estimated success rates. Estimated payments are discounted using present value techniques to arrive at estimated fair value at the balance sheet date. Changes in the fair value of our contingent consideration obligations are recognized within our Consolidated Statements of Operations. Changes in the fair value of the contingent consideration obligations can result from changes to one or multiple inputs, including adjustments to the discount rates, changes in the amount or timing of expected expenditures associated with product development, changes in the amount or timing of cash flows from products upon commercialization, changes in the assumed achievement or timing of any development milestones, changes in the probability of certain clinical events and changes in the assumed probability associated with regulatory approval. These fair value measurements are based on significant inputs not observable in the market. Substantial judgment is employed in determining the

appropriateness of these assumptions as of the acquisition date and for each subsequent period. Accordingly, changes in assumptions could have a material impact on the amount of contingent consideration expense the Company records in any given period.

## Results of Operations

The following data summarize our results of operations for the following periods indicated:

	Three Months Ended December 31, 2015	Three Months Ended December 31, 2014
Revenue	\$ 43,750	\$ 170,750
Operating Loss	(19,341,270)	(25,115,276)
Net Loss	(19,264,414)	(22,575,282)
Earnings per Share (Basic and Diluted)	\$ (0.32)	\$ (0.41)

The decrease in our Operating Expenses during the three months ended December 31, 2015, is primarily due to reduced expenses associated with the drug manufacturing campaign to support our Phase 2b studies for ARC-520, our lead clinical candidate for HBV. The manufacturing campaign for this clinical trial for ARC-520 is largely complete, however, as other clinical candidates are nominated, and as other clinical trials advance, further expenditures will be incurred.

### Revenue

Total revenue was \$43,750 and \$170,750 for the three months ended December 31, 2015 and 2014, respectively. Revenue is primarily related to licensed technology in both periods. In addition, the Company had collaboration revenue of \$80,000 and earned \$47,000 in revenue for delivering a materials study during the three months ended December 31, 2014.

### Operating Expenses

The analysis below details the operating expenses and discusses the expenditures of the Company within the major expense categories. Certain reclassifications have been made to prior period operating expense categories to conform to the current period presentation. For purposes of comparison, the amounts for the three months ended December 31, 2015 and 2014 are shown in the tables below.

#### Research and Development Expenses – Three months ended December 31, 2015 compared to the three months ended December 31, 2014

R&D expenses are related to the Company's on-going research and development efforts, primarily related to program costs, composed primarily of outsourced costs related to the manufacturing of clinical supplies, toxicity/efficacy studies and clinical trial expenses. Internal costs primarily relate to operations at our research facility in Madison, Wisconsin, including facility costs and laboratory-related expenses. The following table provides details of research and development expense for the periods indicated:

(in thousands, except percentages)

	Three Months Ended December 31, 2015	% of Expense	Three Months Ended December 31, 2014	% of Expense	Increase (Decrease)	
		Category		Category	\$	%
Laboratory supplies & services	\$ 602	6%	\$ 493	3%	\$ 109	22%
In vivo studies	289	3%	60	0%	229	382%
Outside labs & contract services	65	1%	126	1%	(61)	-48%
Toxicity/efficacy studies	3,099	30%	2,068	12%	1,031	50%
Drug manufacturing	3,100	30%	9,599	54%	(6,499)	-68%
Clinical trials	2,835	27%	5,064	29%	(2,229)	-44%
License, royalty & milestones	21	0%	23	0%	(2)	-9%
Facilities and related	281	3%	206	1%	75	36%
Other research expenses	47	0%	105	0%	(58)	-55%
Total	<u>\$ 10,339</u>	<u>100%</u>	<u>\$ 17,744</u>	<u>100%</u>	<u>\$ (7,405)</u>	<u>-42%</u>

Laboratory supplies and services expense increased by \$109,000 from \$493,000 during the three months ended December 31, 2014 to \$602,000 during the current period. The Company has expanded its laboratory facility and increased its R&D headcount. The increase in laboratory supplies and services is a result of the purchase of additional supplies necessary to support increased efforts in pre-clinical research as the Company supports ongoing clinical efforts and accelerates efforts to identify new clinical candidates.

In vivo studies expense increased by \$229,000 from \$60,000 during the three months ended December 31, 2014 to \$289,000 during the current period. In vivo expense can vary depending on the stage of preclinical candidates, the nature and amount of testing required and based on the varying costs of different in vivo testing models. The Company has expanded its candidate pipeline which has resulted in additional studies conducted.

Outside labs and contract services expense decreased by \$61,000 from \$126,000 during the three months ended December 31, 2014 to \$65,000 during the current period. The decrease in the current period primarily relates to reduced contracted labor services that have been converted into R&D headcount.

Toxicity/efficacy studies expense increased by \$1,031,000 from \$2,068,000 during the three months ended December 31, 2014 to \$3,099,000 during the current period. This category includes IND-enabling toxicology studies as well as post-IND toxicology studies, such as long-term toxicology studies, and other efficacy studies. The increase primarily relates to toxicology studies related to one of our recent drug candidates, ARC-521, to support later clinical trials. These amounts can vary quarter to quarter based on stage of development.

Drug manufacturing expense decreased by \$6,499,000 from \$9,599,000 during the three months ended December 31, 2014 to \$3,100,000 during the current period. The decrease is primarily due to reduced expenses associated with the drug manufacturing campaign to support our Phase 2b studies for ARC-520, our lead clinical candidate for HBV. The manufacturing campaign for this clinical trial for ARC-520 is largely complete, however, as other clinical candidates are nominated, and as other clinical trials advance, further expenditures will be incurred.

Clinical trials expense decreased by \$2,229,000 from \$5,064,000 during the three months ended December 31, 2014 to \$2,835,000 during the current period. The decrease is primarily driven by the timing of costs incurred in preparation for our anticipated Phase 2b clinical trial for ARC-520. The Phase 2b trials are currently enrolling and we expect clinical trial expenses to increase further as enrollment in our clinical trials increases. We are also incurring costs related to our clinical trial for our second clinical candidate ARC-AAT.

License, royalty and milestones expense was consistent at \$21,000 and \$23,000 during the three months ended December 31, 2015 and 2014, respectively. This category can include milestone payments which can vary from period to period depending on the nature of our various license agreements, and the timing of reaching various development milestones requiring payment.

Facilities expense increased by \$75,000 from \$206,000 during the three months ended December 31, 2014 to \$281,000 during the current period. The increase relates to rent for our additional facility in Middleton, Wisconsin and increased repairs and maintenance costs on our lab equipment.

Other research expense decreased by \$58,000 from \$105,000 during the three months ended December 31, 2014 to \$47,000 during the current period. The decrease primarily relates to costs associated with a collaboration agreement to identify muscle targeting peptide molecules in the three months ended December 31, 2014, for which the Company has been reimbursed from its collaboration partner.

**Salaries – Three months ended December 31, 2015 compared to the three months ended December 31, 2014**

The Company employs scientific, technical and administrative staff at its corporate offices and its research facility. Salaries and payroll-related expense consists of salary, bonuses, payroll taxes and related benefits. Salary and payroll-related expenses include two major categories: general and administrative (G&A) compensation expense, and research and development (R&D) compensation expense, based on the primary activities of each employee. The following table provides detail of salary and payroll-related expenses for the periods indicated:

(in thousands, except percentages)

	Three Months ended	% of	Three Months ended	% of	Increase (Decrease)	
	Ended	Expense	Ended	Expense		
	December 31, 2015	Category	December 31, 2014	Category	\$	%
R&D - compensation-related	\$ 2,946	75%	\$ 2,366	75%	\$ 580	25%
G&A - compensation-related	974	25%	785	25%	189	24%
<b>Total</b>	<b>\$ 3,920</b>	<b>100%</b>	<b>\$ 3,151</b>	<b>100%</b>	<b>\$ 769</b>	<b>24%</b>

R&D compensation expense increased by \$580,000 from \$2,366,000 during the three months ended December 31, 2014 to \$2,946,000 during the current period. An increase in personnel accounted for the majority of the change in compensation-related expense.

G&A compensation expense increased by \$189,000 from \$785,000 during the three months ended December 31, 2014 to \$974,000 during the current period. Higher headcount and annual merit increases accounted for the majority of the change in the current period.

**General & Administrative Expenses – Three months ended December 31, 2015 compared to the three months ended December 31, 2014**

The following table provides details of our general and administrative expenses for the periods indicated:

(in thousands, except percentages)

	Three Months Ended	% of Expense	Three Months Ended	% of Expense	Increase (Decrease)	
	December 31, 2015	Category	December 31, 2014	Category	\$	%
Professional/outside services	\$ 850	44%	\$ 1,253	60%	\$ (403)	-32%
Patent expense	281	14%	177	9%	104	59%
Facilities and related	76	4%	76	4%	-	0%
Travel	250	13%	186	9%	64	34%
Business insurance	138	7%	106	5%	32	30%
Communication and Technology	149	8%	154	7%	(5)	-3%
Office expenses	94	5%	79	4%	15	19%
Other	113	5%	55	2%	58	105%
<b>Total</b>	<b>\$ 1,951</b>	<b>100%</b>	<b>\$ 2,086</b>	<b>100%</b>	<b>\$ (135)</b>	<b>-6%</b>

Professional/outside services include legal, accounting, consulting and other outside services retained by the Company. All periods include normally recurring legal and audit expenses related to SEC compliance and other corporate matters. Professional/outside services expense decreased by \$403,000 from \$1,253,000 during the three months ended December 31, 2014 to \$850,000 during the current period. The decrease primarily related to recruiting fees to fill several management positions in 2014 and higher legal fees in 2014 related to recent litigation events as discussed in Footnote 6 – Commitments and Contingencies.



Patent expense increased by \$104,000 from \$177,000 during the three months ended December 31, 2014 to \$281,000 during the current period. Patent expense increased due to additional prosecution requirements associated with new patents acquired through the Novartis RNAi asset acquisition. The Company continues to invest in patent protection for its DPC™ technology, related product candidates and other RNAi technology through patent filings in multiple countries. The Company expects to extend and maintain protection for its current portfolios, as appropriate, and file new patent applications as technologies are developed and improved. Expenses can vary from period to period as patents proceed through their prosecution life cycle.

Facilities-related expense remained consistent at \$76,000 in each period. Facilities expense relates to recurring expenses associated with our corporate headquarters in Pasadena.

Travel expense increased by \$64,000 from \$186,000 during the three months ended December 31, 2014 to \$250,000 during the current period. Travel expense increased due to travel in support of our R&D function, including our GMP manufacturing campaigns and our clinical trials.

Business insurance expense increased by \$32,000 from \$106,000 during the three months ended December 31, 2014 to \$138,000 during the current period. Business insurance costs increased primarily due to increases in corporate liability insurance and added coverage related to the Company's clinical trials.

Communication and technology expense was fairly consistent at \$149,000 for the three months ended December 31, 2015 and \$154,000 for the three months ended December 31, 2014. This category includes costs associated with the Company's IT infrastructure.

Office expense increased by \$15,000 from \$79,000 during the three months ended December 31, 2014 to \$94,000 during the current period. These expenses relate to conferences/training, office supplies, miscellaneous administrative expenses, and expenses related to office expansions at our R&D facility in Madison and our corporate headquarters in Pasadena.

Other expense increased by \$58,000 from \$55,000 during the three months ended December 31, 2014 to \$113,000 during the current period. This category consists primarily of conference attendance fees, franchise and property tax expenses and marketing expenses. The primary increase in other expense primarily related to the conference attendance fees recorded during the current quarter.

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

Stock-based compensation expense, a noncash expense, was \$2,380,343 and \$2,014,856 during the three months ended December 31, 2015 and 2014, respectively. Stock-based compensation expense is based upon the valuation of stock options and restricted stock units granted to employees, directors, and certain consultants. Many variables affect the amount expensed, including the Company's stock price on the date of the grant, as well as other assumptions. Due to additional options and restricted stock units granted to new and existing employees, compensation expense has increased from the prior year.

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

Depreciation and amortization expense, a noncash expense, was \$794,349 and \$290,039 during the three months ended December 31, 2015 and 2014, respectively. The majority of depreciation and amortization expense relates to depreciation on lab equipment at our Madison research facility. In addition, the Company records depreciation on leasehold improvements at its Madison research facility and its Pasadena corporate headquarters. The increase in depreciation and amortization expense is primarily due to the amortization of the intangible assets acquired in the Novartis RNAi asset acquisition.

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

Other income / expense was income of \$76,856 and \$2,539,994 during the three months ended December 31, 2015 and 2014, respectively. The primary component of other income during the three months ended December 31, 2014 was a change in the value of derivative liabilities related to certain warrants with a price adjustment feature, necessitating derivative accounting. The fluctuations were primarily driven by changes in the Company's stock price, which had a corresponding impact to the valuation of the underlying warrants.

#### **Liquidity and Cash Resources**

Arrowhead has historically financed its operations through the sale of its securities. Research and development activities have required significant capital investment since the Company's inception, and are expected to continue to require significant cash investment.

At December 31, 2015, the Company had cash on hand of approximately \$62.2 million as compared to \$81.2 million at September 30, 2015. Excess cash invested in fixed income securities was \$14.4 million at December 31, 2015, compared to \$17.5 million at September 30, 2015. The Company believes its current financial resources are sufficient to fund its operations through at least the next twelve months.

A summary of cash flows for the three months ended December 31, 2015 and 2014 is as follows:

	Three Months Ended December 31, 2015	Three Months Ended December 31, 2014
<b>Cash Flow from Continuing Operations:</b>		
Operating Activities	\$ (21,148,069)	\$ (24,200,006)
Investing Activities	2,593,388	(4,499,671)
Financing Activities	(495,585)	180,298
Net Increase (Decrease) in Cash	(19,049,266)	(28,519,379)
Cash at Beginning of Period	81,214,354	132,510,610
Cash at End of Period	\$ 62,165,088	\$ 103,991,231

During the three months ended December 31, 2015, the Company used \$21.1 million in cash from operating activities, which represents the on-going expenses of its research and development programs and corporate overhead. Cash provided by investing activities was \$2.6 million, primarily related to maturities on fixed income securities of \$3.0 million, partially offset by capital expenditures of \$0.4 million. Cash used by financing activities of \$0.5 million was driven by cash paid for employee taxes on net share settlements of restricted stock units that vested during the period.

During the three months ended December 31, 2014, the Company used \$24.2 million in cash from operating activities, which represents the on-going expenses of its research and development programs and corporate overhead. Cash used by investing activities was \$4.5 million, primarily related to cash paid for acquisitions of \$7.0 million and capital expenditures of \$0.6 million, partially offset by maturities on fixed income securities of \$3.1 million. Cash provided by financing activities of \$0.2 million was driven by cash received from the exercise of warrants and stock options.

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

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

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

There has been no material change in our exposure to market risk from that described in Item 7A of our Annual Report on Form 10-K for the year ended September 30, 2015, filed with the Securities and Exchange Commission on December 14, 2015.

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

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

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

**ITEM 1. LEGAL PROCEEDINGS**

From time to time, we may be involved in routine legal proceedings, as well as demands, claims and threatened litigation, which arise in the normal course of our business. We believe there is no litigation pending that, individually or in the aggregate, will have a material adverse effect on our results of operations or financial condition. The information contained in Note 6 to the Consolidated Financial Statements under the heading “Litigation” in Part I, Item 1 is incorporated herein by reference.

**ITEM 1A. Risk Factors**

There have been no material changes to the risk factors included in our Annual Report on Form 10-K for the year ended September 30, 2015. Please carefully consider the information set forth in this Quarterly Report on Form 10-Q and the risk factors discussed in Part I, “Item 1A. Risk Factors” in our Annual Report on Form 10-K for the year ended September 30, 2015, which could materially affect our business, financial condition or future results. The risks described in our Annual Report on Form 10-K, as well as other risks and uncertainties, could materially and adversely affect our business, results of operations and financial condition, which in turn could materially and adversely affect the trading price of shares of our Common Stock. Additional risks not currently known or currently material to us may also harm our business.

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

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

**ITEM 3. DEFAULTS UPON SENIOR SECURITIES**

None.

**ITEM 4. MINE SAFETY DISCLOSURES**

Not Applicable.

**ITEM 5. OTHER INFORMATION**

The information contained in Note 9 to the Consolidated Financial Statements in Part I, Item 1 is incorporated herein by reference.

**ITEM 6. EXHIBITS**

<b>Exhibit Number</b>	<b>Document Description</b>
10.1	Lease Agreement between Arrowhead Madison Inc. and University Research Park, Incorporated, dated January 8, 2016*
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002*
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002*
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**
101	The following materials from Registrant's Quarterly Report on Form 10-Q for the quarter ended December 31, 2015, formatted in XBRL (Extensible Business Reporting Language): (1) Consolidated Balance Sheets, (2) Consolidated Statements of Operations, (3) Consolidated Statement of Stockholders' Equity, (4) Consolidated Statements of Cash Flows, and (5) Notes to Consolidated Financial Statements. **

\* Filed herewith

\*\* Furnished herewith

**SIGNATURE**

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

Dated: February 9, 2016

ARROWHEAD RESEARCH CORPORATION

By: /s/ Kenneth A. Myszkowski

Kenneth A. Myszkowski  
Chief Financial Officer

**LEASE AGREEMENT**

**LANDLORD:** UNIVERSITY RESEARCH PARK, INCORPORATED

**TENANT:** ARROWHEAD MADISON INC.

**PROPERTY:** 502 and 504 South Rosa Road Suite  
Madison, Wisconsin 53719

**DATE:** [see signature page of Lease]

LEASE AGREEMENT

This Lease is made by and between University Research Park, Incorporated, a Wisconsin non-stock corporation (hereinafter referred to as "Landlord"), and Arrowhead Madison Inc. a Delaware corporation (hereinafter referred to as "Tenant"), as of the date of execution by Landlord as set forth on the signature page hereof.

WITNESSETH:

IT IS HEREBY AGREED, by and between the parties hereto, in consideration of the covenants and agreements set forth in this Lease, as follows:

1. PREMISES AND TERM

1.1. **Leased Premises.** Landlord hereby leases to Tenant and Tenant hereby leases from Landlord on the terms and provisions and subject to the conditions hereinafter set forth in this Lease, the following described premises:

Approximately 52,858 rentable square feet of space in that certain building identified as 502 South Rosa Road and 7,759 rentable square feet of space in that certain building identified as 504 South Rosa Road, Madison, Dane County, Wisconsin, (herein referred to as the "Leased Premises"). In addition to the Leased Premises, Tenant shall have the right to the non-exclusive use of all Common Area (defined below) situated upon the property described in Exhibit A attached hereto (the Property described in Exhibit A is referred to herein as the "Landlord's Property"). The location of the Leased Premises on the Landlord's Property is indicated on the map attached hereto as Exhibit B-1, and the floor plan attached hereto as Exhibit B-2. The Leased Premises current pro-rata share of total building area located on Landlord's Property is 0.42.

1.2. **Term of Lease.** The term of this Lease ("the Term") shall begin at midnight on January 1, 2016 (the "Commencement Date"). The Term shall end at midnight on September 30, 2026.

1.3. **Option to Extend.** Tenant is hereby granted two (2) options to extend the term of this Lease for five (5) years each (the "Extended Term"). If Tenant exercises its option, the resulting Extended Term shall begin upon the expiration of the original Term, and all terms, covenants, and provisions of this Lease shall apply to any Extended Term with the exception of this Section 1.3. If Tenant elects to exercise the option to extend, provided this Lease is in full force and effect and Tenant has performed all of the terms, covenants and provisions hereof on Tenant's part to be performed, Tenant shall do so only by giving Landlord notice in writing of its intention to exercise its option to extend not later than six (6) months prior to the expiration of the original Term. If, at any time during the Term of this Lease, Tenant vacates the Leased Premises, Tenant automatically forfeit its options to extend the Term of this Lease. The rent schedule for the Extended Term is located in Section 2.1.

**1.4. Condition of Leased Premises.** Landlord shall deliver, and Tenant shall accept the Leased Premises as depicted on Exhibit B-2 in AS-IS, WHERE-IS condition except as set forth on Exhibit B-3 with regard to Landlord's representation of the building HVAC system.

**1.5. Security Deposit.** Tenant shall pay to Landlord the sum of One Hundred Twelve Thousand Six Hundred Forty Six and 59/100 Dollars (\$112,646.59) as security for the performance of the obligations hereof by Tenant, payable in the form of cash or equivalent. Tenant shall pay to Landlord upon execution of this Lease \$76,544.09, and shall pay the remaining balance of \$36,102.50 upon receipt of the Security Deposit held by Landlord to secure Tenant's obligations under that certain Lease Agreement between the same parties for that certain building located at 465 Science Drive, Madison, WI and executed April 11, 2008. This security deposit shall be returned to Tenant within sixty (60) days following the termination of this Lease, less any amount appropriately applied by Landlord.

**1.6. Condition of Improvements.** Following the Commencement Date, but before October 1, 2016, Tenant shall undertake those certain improvements to the Building listed on Exhibit B-2 (the "Tenant Improvements"). Tenant shall select a contractor and an architect from a list of contractors mutually approved by Landlord and Tenant. Notwithstanding anything else here, Ideal Builders, Vogel Bros. Building Corp. are considered approved contractors, and BWBR and Epstein Uhen are considered approved architects. Landlord shall not impose any charge for profit, overhead or supervision in connection with the construction of the Tenant Improvements. Landlord shall provide a one-time allowance (the "Primary Tenant Allowance") of Thirty Five and 00/100 Dollars (\$35.00) per rentable square foot for a total primary allowance of \$2,121,595 to cover the cost of constructing the Tenant Improvements. Landlord shall provide Tenant an additional one-time allowance (the "Secondary Tenant Allowance"; collectively, the Primary Tenant Allowance and the Secondary Tenant Allowance shall be referenced herein as the "Tenant Allowance") of up to Forty Five and 00/100 Dollars (\$45.00) per rentable square foot for a total potential secondary allowance of \$2,727,765 to cover costs of constructing the Tenant Improvements not covered by the Primary Tenant Allowance. The Secondary Tenant Allowance shall be a loan by Landlord to Tenant. The balance of the Secondary Tenant Allowance shall be amortized over the term of ten (10) years, shall accrue interest at the rate of seven and one tenth of one percent (7.1%) and shall be payable in 120 equal monthly payments of principal and interest. The entire balance of the Secondary Tenant Allowance shall be due and payable upon the termination of this Lease. At the time the Secondary Tenant Allowance is paid, Tenant shall deliver to Landlord a promissory note in the form attached hereto as Exhibit F (the "Note") securing Tenant's obligation to repay the Secondary Improvement Allowance. A default under the Lease shall also constitute a default under the Note, and a default under the Note shall also constitute a default under the Lease.

All Tenant Improvements must be reviewed and approved by Landlord and completed by Tenant in a first class manner, using skilled contractors and new, high-quality materials. The Tenant Allowance may be used to cover architectural fees and engineering costs incurred in connection with the Tenant Improvements by Tenant. Tenant shall reimburse Landlord for reasonable expenses, not to exceed \$5,000.00, incurred related to any necessary third party review of Tenant's Tenant Improvement plans by a licensed building engineer or architect. Upon completion of the Tenant Improvements, Tenant shall take possession of the Leased Premises in its then "As Is, Where Is" condition.



Tenant's selection of any construction managers, project managers, architects, space planners, general contractors, or sub-contractors to complete all or any portion of the Tenant Improvements shall be subject to Landlord's prior approval, which approval shall not be unreasonably conditioned, delayed or withheld beyond ten (10) business days of Tenant's request. Tenant shall hold and administer the contract or contracts for the Tenant Improvements. All plans and specifications for the Tenant Improvements are subject to Landlord's prior approval, which approval shall not be unreasonably conditioned, delayed, or withheld.

Landlord will choose a title company to hold and administer the allocation of the Tenant Allowance to Tenant's contractor for payment of the construction of the Tenant Improvements. Tenant shall be responsible for any and all fees or costs due to the title company for the services listed herein. Landlord will direct the title company that the Tenant Allowance will be made available to Tenant's contractor in one or more installments as construction of the Tenant Improvements progresses, provided that Tenant (a) is not in default beyond any applicable notice and cure periods set forth in this Lease; (b) if any portion of the Secondary Tenant Allowance is to be paid, has delivered to Landlord the executed Note; and (c) has furnished to a copy of the Builder's Risk insurance policy required under Section 6.3 (c) herein to all interested parties. Tenant's applications to the title company for progress payments shall include (i) a list of all contractors, subcontractors and material suppliers performing work or providing material for which payment is requested; (ii) an itemization of the work performed and materials provided; (iii) the percentage of work performed or materials provided in that category; (iv) copies of all supporting invoices from all contractors, subcontractors and material suppliers requesting payment; (v) a certification by Tenant and Tenant's contractor that the application is true and correct and that the requested payments will be made in accordance with the standards and requirements of the construction contract; and (vi) full or partial lien waivers from any and all contractors, subcontractors, or material suppliers that have performed work or furnished supplies under contract to date in a form and substance reasonable acceptable to Landlord, Landlord's lender, and the title company. Following receipt of a complete application for a progress payment demonstrating entitlement to payment, the title company shall cause any work performed under contract with Tenant's contractor to be inspected and independently confirm the veracity of said application. Provided the application is truthful, the title company shall remit the requested portion of the Tenant Allowance to Tenant's contractor, who shall then issue payment to the contractors, subcontractors and material suppliers. Tenant shall pay any and all construction interest expense incurred by Landlord during the construction of the Tenant Improvements. The construction interest rate is approximately 7.01%. If Tenant utilizes less than the full amount of the Secondary Tenant Allowance to construct the Tenant Improvements, Tenant may elect to use the remaining balance to pay the construction interest expense due to Landlord.

Upon Substantial Completion of the Tenant Improvements, Tenant shall submit to Landlord an invoice detailing the actual, total costs of the Tenant Improvements along with the following documents: (i) a copy of the final unqualified certificate of occupancy or its functional equivalent for the Leased Premises; (ii) a sworn affidavit from Tenant and Tenant's general contractor reasonably acceptable to Landlord, Landlord's lender and Landlord's title insurance company stating the actual direct costs paid by Tenant for the construction of the Tenant Improvements; and (iii) full, final mechanic's lien waivers, in form and substance

reasonably acceptable to Landlord, Landlord's lender, and the title insurance company (if applicable), from Tenant's general contractor, and any person providing labor or materials for the Tenant Improvements at a cost in excess of \$5,000.00 (collectively, the "Invoice"); (iv) a copy of the certificate of Substantial Completion and a Compliance Statement as furnished by Tenant's architect; (v) PDF and CAD copies of the final "as-built" drawings showing the actual on-site changes to the original construction drawings as performed by Tenant's contractor and certified by Tenant's architect; and (vi) PDF copies of all shop drawings, cut sheets, warranties, and other construction documents necessary to create a comprehensive building owners' manual.

The term "Substantial Completion" shall mean the date when: (i) all of the Tenant Improvements shall have been substantially completed as certified by Tenant's architect except for the Punch List Items (as hereinafter defined); and (ii) Tenant has obtained any governmental approval or certification of the premises as fit for Tenant's legal occupancy and use as defined within the Lease. The term "Punch List Items" shall mean details of construction, decoration, and mechanical adjustments that, in the aggregate, are minor in character and do not materially interfere with Tenant's use or enjoyment of the Leased Premises. Punch list items shall be completed within sixty (60) days after Substantial Completion. If, prior to the completion of the Punch List, Tenant has secured a temporary certificate of occupancy, its functional equivalent, or any other governmental approval or certification of the premises as fit for Tenant's legal occupancy, Tenant shall, with due diligence, complete the remaining work required to obtain, and shall thereupon obtain, a permanent certificate of occupancy for the Leased Premises, and shall furnish a copy of the same to Landlord.

If the actual costs of the Tenant Improvements are less than the Tenant Allowance, Landlord shall keep the difference between the Tenant Allowance and the actual cost of the Tenant Improvements, and the Additional Space Rent set forth in Section 2.1 shall be recalculated and proportionally adjusted to account for the actual cost and incorporated into this Lease by amendment.

## 2. RENT

**2.1. Base Rent.** Tenant shall pay to Landlord at its office in Madison, Wisconsin, or such other place as Landlord may designate in writing, and without any deduction or offset whatsoever, as base rent, the following amounts in advance on or before the first day of each calendar month during the Term indicated in the rent table below:

<b>Term</b>	<b>Initial Space Rent per Square Foot*</b>	<b>Additional Space Rent per Square Foot**</b>	<b>Monthly 465 Tenant Improvement Rent***</b>	<b>Total Monthly Base Rent Due</b>
1/1/2016 – 9/30/2016	\$0.00	\$0.00	\$0.00	\$0.00
10/1/2016 – 9/30/2017	\$16.00	\$6.30	\$19,034.96	\$131,681.55
10/1/2017 – 9/30/2018	\$16.40	\$6.30	\$19,034.96	\$133,702.12
10/1/2018 – 9/30/2019	\$16.81	\$6.30	\$19,034.96****	\$135,773.20
10/1/2019 – 9/30/2020	\$17.23	\$6.30	-	\$118,859.83
10/1/2020 – 9/30/2021	\$17.66	\$6.30	-	\$121,031.94
10/1/2021 – 9/30/2022	\$18.10	\$6.30	-	\$123,254.56
10/1/2022 – 9/30/2023	\$18.55	\$6.30	-	\$125,527.70
10/1/2023 – 9/30/2024	\$19.01	\$6.30	-	\$127,851.35
10/1/2024 – 9/30/2025	\$19.49	\$6.30	-	\$130,276.03
10/1/2025 – 9/30/2026	\$19.98	\$6.30	-	\$132,751.23
<b>Extended Term 1</b>				
10/1/2026 – 9/30/2027	\$20.48	-	-	\$103,453.01
10/1/2027 – 9/30/2028	\$20.99	-	-	\$106,029.23
10/1/2028 – 9/30/2029	\$21.51	-	-	\$108,655.97
10/1/2029 – 9/30/2030	\$22.05	-	-	\$111,383.74
10/1/2030 – 9/30/2031	\$22.60	-	-	\$114,162.02
<b>Extended Term 2</b>				
10/1/2031 – 9/30/2032	\$23.17	-	-	\$117,041.32
10/1/2032 – 9/30/2033	\$23.75	-	-	\$119,971.15
10/1/2033 – 9/30/2034	\$24.34	-	-	\$122,951.48
10/1/2034 – 9/30/2035	\$24.95	-	-	\$126,032.85
10/1/2035 – 6/30/2036	\$25.57	-	-	\$129,164.72

\*The monthly Initial Space Rent listed above reflects increases of two and one half percent (2.5%) annually. The first such increase shall take place on October 1, 2017.

\*\*The monthly Additional Space Rent listed above reflects the full \$45.00 per rentable square foot Secondary Tenant Allowance amortized at approximately 7.1% over the Lease term, which shall be payable in 120 equal monthly payments of principal and interest.

\*\*\*Monthly 465 Tenant Improvement Rent is equal to the outstanding balance of the tenant improvement rent Tenant owes Landlord under that certain Lease Agreement between Landlord and Tenant as successor-in-interest for the building

located at 465 Science Drive, Madison, WI, and is hereby incorporated into this Lease. Tenant may prepay the entire outstanding balance at any time discounted by 3.8% per year to the date of the prepayment.

\*\*\*\* The Monthly 465 Tenant Improvement Rent payments of \$19,034.96 shall end following the February 2019 payment. Total Monthly Base Rent due beginning in March 2019 shall be \$116,738.24.

**2.2. Additional Rent.** During the Term, in addition to base rent, Tenant shall pay as part of the consideration for this Lease and as additional rent, hereinafter designated "additional rent," all additional amounts hereinafter provided for and the same shall be payable upon Landlord's demand except as otherwise expressly provided, including, but not limited to Tenant's Proportionate Share, as defined in Section 5.6. of real estate taxes, Common Area charges, and Tenant's Proportionate Share of Landlord's insurance and utilities. Landlord reserves the right to deviate from any estimates so that the amounts due as additional rent for the Leased Premises are consistent with the amounts due as additional rent as determined by the more detailed provisions pertaining thereto within this Lease. Consistent with the forgoing, Tenant agrees to pay those amounts, if any, in excess of any estimate by Landlord. Between the Commencement Date and the sooner of either October 1, 2016 or Substantial Completion by Tenant of the Tenant Improvements as evidenced in accord with Section 1.6, Tenant shall only be responsible for utilities.

**2.3. Past Due Rent.** If Tenant shall fail to pay when due any base rent or additional rent, and such amount shall not be paid within ten (10) days after the date when due, such unpaid amounts shall bear interest from the due date thereof to the date of payment at the rate of ten percent (10%) per annum or the prime interest rate then charged by the U.S. Bank National Association or its successors or assigns, whichever is greater.

**2.4. Real Estate Taxes.** Landlord shall pay all general taxes on Landlord's Property, including all general real estate taxes, personal property taxes on Landlord's personal property located at Landlord's Property and installments for special assessments arising during the Term of the Lease. Tenant agrees to reimburse Landlord for Tenant's Proportionate Share of such taxes and assessments

Tenant's obligation for each tax described in this section shall be further prorated for the first year of this Lease between Landlord and Tenant as of the Commencement Date of this Lease. Tenant's obligation for each tax described in this section shall be further prorated for the last year of the Term as of the last day of the Term. Tenant shall have the right, at Tenant's sole cost and expense, to audit these costs with an auditor of Tenant's choice.

Tenant shall, upon notice from Landlord, pay in escrow to Landlord one-twelfth (1/12) its Proportionate Share of the estimated annual real estate taxes, personal property taxes and installments for special assessments for Landlord's Property on the first day of each month after such request, provided, however, that if the sum of such installments shall be less than the total amount of Tenant's Proportionate Share of such taxes, Tenant shall pay such deficiency at least ten (10) days in advance of the due date of such taxes, taking into account any installment payment arrangements offered by the taxing authority without the imposition of any finance

charge, penalty or other cost. Tenant's escrow payment shall be applied by Landlord to the payment of the taxes on the Landlord's Property. At the termination of this Lease, Tenant shall pay Landlord for Tenant's Proportionate Share of taxes for that portion of the termination year this Lease is in effect. Once Tenant's Proportionate Share of taxes for that portion of the termination year this Lease is in effect is known, Landlord shall send Tenant an invoice indicating Tenant's Proportionate Share of taxes. Tenant shall pay Landlord's invoice within thirty (30) days of receipt of Landlord's invoice. Any payment by Tenant in excess of its Proportionate Share of taxes for any tax year shall be refunded to Tenant as soon as reasonably practicable.

For the purpose of this Section 2.4, Tenant's Proportionate Share shall be calculated by dividing the rentable square footage of the Leased Premises by the rentable square footage of all buildings located from time to time on Landlord's Property.

### **3. INSTALLATIONS, REPAIRS AND MAINTENANCE OF LEASED PREMISES**

**3.1. Maintenance by Tenant.** Tenant shall at all times keep the Leased Premises and all partitions, doors, fixtures, equipment and appurtenances thereof (including but not limited to electrical, lighting, HVAC, and plumbing equipment, lines and fixtures servicing only the Leased Premises) (the "Non-Structural Elements) in good order, condition and repair, reasonable wear and tear excepted. If Tenant refuses or neglects to repair property as required hereunder and to the reasonable satisfaction of Landlord as soon as reasonably possible after written demand, Landlord may make such repairs without liability to Tenant for any loss or damage that may accrue to Tenant's property or to Tenant's business by reason thereof and upon completion thereof, Tenant shall pay Landlord's costs for making such repairs plus twenty percent (20%) for overhead, upon presentation of bill therefor, as additional rent. When used in this section, the term "repairs" shall include replacements and renewals when necessary and all such repairs shall be equal in quality and class of original work.

Notwithstanding anything above to the contrary, if during the Term, any HVAC or elevator repair cannot be repaired other than at a cost which is in excess of fifty percent (50%) of the cost of replacing such item(s), then such item(s) shall be replaced by Tenant (subject to Landlord's prior approval of the plans and specifications and the cost of any such replacement), and Landlord shall reimburse Tenant a pro rata share of the cost thereof based upon a fraction, the numerator of which is the number of months of the useful life of such replacement item beyond the expiration of the Term, and the denominator of which is the total number of months of the useful life of such replacements. For the purposes of this Section, generally accepted accounting principles ("GAAP") will be used to determine whether any repair or replacement hereunder is a capital improvement.

**3.2. Maintenance by Landlord.** Landlord shall keep foundations, exterior walls, roof and all other interior and exterior structural members of the Leased Premises and all Common Areas including, shared use equipment and any electrical, HVAC, and plumbing lines and equipment not exclusively servicing the Leased Premises (all of which shall be considered as part of the Common Areas) in good repair and shall have access to the Leased Premises for such purpose, but Landlord shall not be required to make any such repairs which

become necessary or desirable by reason of the negligence of Tenant, its agents, servants, employees or customers. Landlord shall enter into service contracts on all heating, ventilating and air conditioning units, including but not limited to changing filters, checking belts and oiling of units. Prior to the Commencement Date, Landlord, at Landlord's sole cost and expense, shall (i) cause a third-party contractor, who shall be mutually agreeable to both Landlord and Tenant, to inspect the HVAC allocated to the Leased Premises, and (ii) shall provide promptly the results of such inspection to Tenant. Tenant shall pay its Proportionate Share of (i) the cost of such contracts and (ii) the capital replacement cost of any Non-Structural Elements located in the Common Areas, which capital replacement cost shall be amortized over the useful life of the Non-Structural Element replaced as a Common Area charge pursuant to Section 5.5. For the purposes of this Section, generally GAAP will be used to determine whether any repair or replacement hereunder is a capital improvement.

**3.3. Exterior Signs.** All exterior signs to be installed by Tenant shall be approved in advance in writing by the Design Review Board appointed by the Board of Regents of the University of Wisconsin System. All signs to be installed by Landlord shall be approved in advance in writing by the Design Review Board.

Tenant shall remove all signs installed by Tenant at the termination of this Lease. Such installations and removals shall be made in such a manner as to avoid injury, defacement or any other damages to the buildings and improvements. The cost of repairing any damage to the building caused by the installation, removal, or maintenance of the sign shall be borne by the Tenant.

The cost of all signs, other than those furnished by Landlord, including the installation, maintenance, and removal thereof, shall be the responsibility of the Tenant. Notwithstanding the above, Tenant will be listed on the multi-tenant directory sign at the street entrance to the property and will have exclusive use of the directional sign at the entrance to the 502 building for their name and logo.

**3.4. Alterations, Changes and Installations by Tenant.** Tenant shall not make or cause to be made any alterations, additions or improvements to the Leased Premises, or cause to be installed any fixtures, interior or exterior lighting, plumbing equipment or mechanical equipment within the Leased Premises or any Common Areas without the prior written consent of Landlord, not to be unreasonably withheld, conditioned nor delayed.

**3.5. Fixtures and Equipment.** Subject to Section 3.4, Tenant may, at its own expense, furnish and install such business and trade fixtures in and on the Leased Premises as may be necessary or desirable for Tenant's business. Upon expiration of this Lease, Tenant may remove such business and trade fixtures provided that Tenant shall promptly repair any damage caused by their removal. Landlord and Tenant acknowledge that all business and trade fixtures currently located within the Leased Premises are the property of the Landlord. Tenant may, at its own expense, install equipment within the Leased Premises and such equipment shall remain the property of Tenant and shall be removed by Tenant upon the termination of this Lease.

**3.6. Liens and Obligations.** Tenant agrees not to create or to permit others to create any lien or obligations against Landlord or the Leased Premises in making alterations, repairs or in installing materials, fixtures or equipment. If a lien or obligation is claimed against Landlord or the Leased Premises, Tenant shall either (a) provide Landlord with a bond in the amount of that claim, or (b) cause that claim to be released. Tenant further agrees to hold Landlord harmless from all claims and demands by any third party in any manner connected with such alterations, repairs or installations or with Tenant's occupancy for such purpose. Tenant shall comply with all laws and all directions, rules and regulations of all governmental regulatory bodies or officials having jurisdiction over such alterations, repairs or installations, except that Tenant shall not be required to comply with any laws, regulations or orders by governmental authority necessitating structural alterations, changes, repairs or additions, unless made necessary by the act or work performed by Tenant, in which case Tenant shall so comply, at its own expense, after first procuring the written consent of Landlord.

#### **4. CONDUCT OF BUSINESS**

**4.1. Business Use.** It is understood and agreed that the Leased Premises shall be used and occupied by Tenant as a general office, laboratory, and related ancillary uses thereto. Tenant shall not use the Leased Premises for any use not identified as a permitted use by any zoning ordinance or other governmental regulation relating to the Leased Premises or approved as a conditional use by the governmental bodies having zoning authority. No use shall be permitted, or acts done, which will cause a cancellation of any insurance policy covering the Leased Premises. Tenant shall not sell, permit to be kept, used or sold in or about the Leased Premises any article which may be prohibited by the standard form of fire insurance policy. In the event Tenant's use of the Leased Premises results in an increase in the cost of any insurance relating to the Landlord's Property, Tenant shall pay such additional cost to Landlord upon demand. Tenant shall comply with all applicable laws, ordinances, regulations, and/or deed and plat restrictions affecting the use and occupancy of the Leased Premises. Tenant shall not commit, or permit to be committed, any waste or nuisance on the Leased Premises.

**4.2. Utility Charges.** Landlord shall furnish to the Leased Premises heat, gas, sewer, electricity and other utilities. Tenant shall be solely responsible for and promptly pay all charges for heat, water, gas, sewer, electricity or any other utility used or consumed in the Leased Premises, including supplemental heating. In the event utilities are not separately metered, Tenant shall pay Tenant's Proportionate Share of utility costs for the Leased Premises. For the purpose of this Section 4.2., Tenant's Proportionate Share shall be calculated by dividing the rentable square footage of the Leased Premises by the rentable square footage of the building in which the Leased Premises is located or another appropriate allocation method which fairly allocates utility costs between tenants in the building based on differing usage, e.g. laboratory versus office use. In no event shall Landlord be liable for an interruption or failure in the supply of any such utilities to the Leased Premises. Tenant shall have the right, at Tenant's sole cost and expense, to audit these costs with an auditor of Tenant's choice.

**4.3. Taxes on Leasehold.** Tenant shall be responsible for and shall pay before delinquency all municipal, county, state, or other taxes assessed during the Term of this Lease against any leasehold interest or personal property of any kind, owned by or placed in, upon or about Leased Premises by Tenant.

**4.4. Assignment or Subletting.** Tenant shall have the right to assign this Lease to (a) any subsidiary, parent or affiliate of Tenant; (b) to the entity resulting from any corporate reorganization to which Tenant is a party; (c) any entity resulting from a merger; or (d) to an entity purchasing substantially all of the assets of Tenant. In the event Tenant assigns this Lease pursuant to the previous sentence, Tenant shall not be relieved from the covenant to pay rent or any other covenant owed to Landlord under this Lease. Except as provided in (a), (b), (c) and (d) preceding, Tenant agrees not to sell, assign, mortgage, pledge or in any manner transfer this Lease or any estate or interest thereunder and not to sublet the Leased Premises or any part or parts thereof without the prior written consent of Landlord in each instance which consent shall not be unreasonably withheld, conditioned or delayed. Of the total consideration paid to Tenant for a sublease or assignment that exceeds the amount Tenant must pay Landlord under this Lease (the "Excess Consideration"), fifty percent (50%) shall be paid to Landlord. Where a part of the Premises is subleased or assigned, there shall be a prorating of the Rent payable under this Lease and the rent payable under the assignment or the sublease to determine whether Excess Consideration is payable to Landlord. Excess Consideration shall exclude reasonable leasing commissions paid by Tenant, payments attributable to the amortization of the cost of Tenant improvements made to the Premises at Tenant's cost for the assignee or subtenant, and other reasonable, actual cash out-of-pocket costs paid by Tenant, such as attorneys' fees directly related to Tenant's obtaining an assignee or sublease. Tenant shall pay this Excess Consideration to Landlord at the end of each calendar year during which Tenant collects any Excess Consideration. Each payment shall be sent with a detailed statement showing the total consideration paid by the subtenant or assignee and any exclusions from consideration permitted by this section.

Consent by Landlord to one assignment of this Lease or to one licensing or subletting of the Leased Premises shall not be a waiver of Landlord's rights hereunder as to subsequent assignment or subletting, or act to release any guaranty of this Lease, Landlord's rights to assign this Lease are and shall remain unqualified. Furthermore, Landlord's consent to any assignment or sublease shall not, in the absence of language to the contrary contained within said assignment or sublease, release Tenant from the covenant to pay rent or any other covenant owed by Tenant to Landlord under this Lease.

**4.5. Corporate Ownership.** If the Tenant is a corporation and if at any time during the Term of this Lease any part or all of the corporate shares of said corporation shall be transferred by sale, assignment, operation or law or other disposition (except transfers by gift, bequest or inheritance) so that the result of such transfer would be the loss of voting control of said corporation by the person or persons owning a majority of said corporate shares at the date of this Lease, the Tenant shall notify the Landlord in writing of such changes in voting control and Landlord may terminate this Lease by giving Tenant written notice of such termination within ninety (90) days after receipt of Tenant's notice. This section, however, shall not apply if on the date this Lease is executed the Tenant is a corporation, the outstanding common stock of which is listed on a recognized security exchange, or if at least eighty percent (80%) of the Tenant's stock is owned by another corporation, the common stock of which is so listed.

**4.6. Rules and Regulations.** The rules and regulations appended to this Lease as Exhibit C are hereby made a part of this Lease. The rules and regulations adopted by the Landlord shall be in writing and provided to Tenant in order to be effective. Tenant agrees to



comply with and observe the rules and regulations. Tenant's failure to keep and observe said rules and regulations shall constitute a breach of the terms of this Lease in the manner as if the same were contained herein as covenants. Landlord reserves the right from time to time to amend or supplement said rules and regulations and to adopt and promulgate additional rules and regulations applicable to Leased Premises, and the property described in Exhibit A, provided that such additional rules and regulations apply equally to all lessees with the project and do not unreasonably interfere with Tenant's use and enjoyment of the Leased Premises. Any such additional rules and regulations, and amendments and supplements, if any, shall be given to Tenant in writing, and Tenant agrees thereupon to comply with and observe all such rules and regulations and amendments thereto and supplements thereof.

**4.7. Surrender.** On the last day of the Term of this Lease, including any option term, or upon the sooner termination thereof, Tenant shall peaceably and quietly surrender the Leased Premises and all improvements thereon in the same condition as at the commencement of this Lease, in good order, condition and repair, fire and other unavoidable casualty, and reasonable wear and tear excepted. All alterations, additions, and improvements other than business and trade fixtures which may be made or installed by either Landlord or Tenant upon the Leased Premises or in common areas including business and trade fixtures installed by Tenant pursuant to Section 3.5, shall remain the property of Landlord and shall remain upon and be surrendered without disturbance, molestation or injury at the termination of the Term of this Lease, whether by the elapse of time or otherwise, all without compensation or credit to Tenant. Tenant shall remove all equipment and personal property and shall repair any damage occasioned by such removal. Tenant may elect to surrender any chemical fume hoods installed and considered in fair condition at the time of surrender within the Leased Premises. Any personal property not removed by Tenant shall be deemed abandoned and shall become the property of Landlord; provided, that the Landlord shall have the option to effect said removals and Tenant shall pay Landlord, on demand, the cost of removal thereof, with interest at the rate of ten (10%) percent per annum from the date of such removal by Landlord, or the prime interest rate established by U.S. Bank National Association or its successors or assigns, whichever is higher.

The delivery to Landlord at the place then fixed for the payment of rent of the keys to the Leased Premises shall constitute surrender of the premises by Tenant and acceptance of the keys by Landlord shall constitute acceptance by Landlord of such surrender. Such acceptance by Landlord shall not constitute a waiver of any rights to recover damages under terms of this Lease. This method of surrender shall not be exclusive and shall be in addition to all other methods of surrender.

## **5. COMMON USE AREAS AND FACILITIES**

**5.1. Common Area.** As used herein, "Common Area" shall include all of that portion of the improvements on and all areas within the Landlord's Property which are designed for common use and benefit, exclusive of space in buildings (or any additional buildings) designed for rental to Tenants for commercial purposes as the same may exist from time to time. Landlord reserves the right to change building perimeters, add additional buildings, drives, or other structures and to make other changes desired, provided that reasonable access to and use of the Leased Premises is provided and Landlord uses reasonable

measures to minimize any disruption or interruption to the conduct of Tenant's business operations at the Premises. Landlord agrees to provide access from the Leased Premises to the University Research Park Data Network ("URPNet"). URPNet is a high-speed communications service, linking computers located at the University Research Park to the University of Wisconsin-Madison campus and national computer networks (the "Campus System"). URPNet is meant to encourage technology and information transfer between companies and the University of Wisconsin-Madison researchers, staff and students. URPNet consists of a fiber optic-based Ethernet serving portions of the University Research Park and connected to the Metropolitan United Fiber Network ("MUFN"). Individual workstations are connected to URPNet using twisted-pair Ethernet compatible cabling. URPNet is connected to the Campus System Ethernet. Landlord will provide Tenant access to the URPNet service with an initial system-wide capacity of 1 Gigabit/second. Tenant's use of URPNet is subject to acceptable use policies promulgated from time to time by Landlord. Landlord reserves the right to limit or deny any Tenant's use of URPNet as a result of repeated violations of promulgated acceptable use policies. Tenant's use of the Campus resources and certain databases may be limited and may require negotiation of separate agreements between Tenant and the University of Wisconsin-Madison. Attached is a description of certain services that may be available to Tenant (Exhibit D).

**5.2. Use of Common Area.** Landlord hereby grants to Tenant, its employees, agents, customers and invitees, the nonexclusive right during the Term to use the Common Area and all equipment and fixtures therein as the same may exist from time to time, such use to be in common with Landlord and all tenants of Landlord from time to time, its and their employees, agents, customers and invitees, except when the same are being repaired. Tenant shall have use of the parking lots serving Landlord's Property as a Common Area.

**5.3. Operation and Maintenance.** The Common Area shall at all times be subject to the exclusive control and management of Landlord and Landlord shall manage, operate, repair and maintain the Common Area and its facilities in a clean and sightly condition. The manner in which such area and facilities shall be maintained and the expenditures therefor shall be at the Landlord's sole discretion. Landlord reserves the right to add and remove equipment and fixtures from the Common Areas in its sole discretion.

**5.4. Preventing Public Rights.** If Landlord deems it necessary in order to prevent the acquisition of special rights, Landlord may from time to time close all or any portion of the Common Area or take such action as shall be reasonably appropriate for that purpose.

**5.5. Charge for Common Area and Facilities.** During the Term, Tenant shall pay to Landlord an annual charge which shall be Tenant's Proportionate Share of the Landlord's actual cost of operating, maintaining, repairing, and replacing the Common Area and other facilities which shall include, but shall not be limited to common conference rooms, kitchen areas, hallways and lobbies, driveways, parking areas, landscaped and vacant areas, area-ways, walks, curbs, corridors, gardens, sanitary and storm sewers, signs, public facilities such as washrooms, drinking fountains, toilets, the cost of operating, repairing, lighting, heating, air conditioning, cleaning, painting, removing of snow, ice and debris, policing and inspecting, insurance for hazards and other risks, maintenance including but not limited to such repair of paving, curbs, walkways, driveways, landscaping and drainage and lighting facilities

as may be necessary from time to time to keep the same in good condition and repair, a reasonable allowance for the depreciation of maintenance equipment, and a reasonable allowance for Landlord's overhead costs in conjunction with the foregoing. Notwithstanding anything else herein to the contrary, Common Area Expenses shall not include any of the costs listed on Exhibit E attached hereto and incorporated herein by reference. Landlord reserves the right to charge separate and reasonable user fees for certain equipment and fixtures located in the Common Areas. Landlord shall provide Tenant with an itemized statement of Common Area costs and user fees.

Notwithstanding anything herein to the contrary, the costs of any repairs or replacements which are classified as capital improvements under GAAP shall be amortized with interest over the useful life of the improvement and included in Operating Expenses only to the extent of the amortized amount for the respective calendar year.

**5.6. Formula For Proportionate Share.** The annual charge for Common Area maintenance and facilities shall be computed on the basis of twelve (12) consecutive calendar months commencing and ending on dates designated by the Landlord and shall be paid in advance in monthly installments on the first day of each calendar month in an amount estimated by Landlord. Within sixty (60) days after the end of each such twelve (12) month period, Landlord shall determine and furnish to Tenant a computation of the actual amount charged for such period; and the amounts so estimated and paid during such period shall be adjusted promptly (including adjustments on a pro rata basis for any partial such period at either end of the Lease Term) by one party's paying to the other whatever amount is necessary to effectuate such adjustment.

The Tenant's Proportionate Share of the Landlord's actual costs defined in this Article which are applicable to all tenants occupying space on Landlord's Property shall be that proportion which the rentable area in the Leased Premises bears to the total rentable area in the buildings located from time to time on the Landlord's Property. If Landlord restricts use of certain Common Areas or equipment and fixtures within Common Areas to Tenant's dwelling or buildings in which such Common Areas are located, the expenses of such Common Areas shall be allocated among tenants of that particular building or buildings, not all buildings on Landlord's Property. In that case, Tenant's Proportionate Share shall be that portion which the rentable area in the Leased Premises bears to the total rentable area in the building or buildings to which the costs being allocated apply.

**5.7. Basis For Changes.** Changes in any particular floor area occurring during any calendar month shall be effective on the first day of the next succeeding calendar month and the amounts of any floor area in effect for the whole of any year shall be the average of the total amounts in effect on the first day of each calendar month in such year.

**5.8. Hazardous Materials.** Landlord represents and warrants that, as of Commencement Date there are no Hazardous Materials (as hereinafter defined) present in the Leased Premises or in, on or under Landlord's Property. Landlord agrees that the remediation, removal or neutralization, if and to the extent required by Environmental Regulations (as hereinafter defined), of any Hazardous Materials in the Leased Premises or in, on or under the Landlord's Property shall be done by Landlord, at its sole cost and expense, if such Hazardous

Materials discovered were not introduced in the Leased Premises or in, on or under the Landlord's Property by Tenant, its agents, employees or contractors. Tenant agrees that the remediation, removal or neutralization, if and to the extent required by Environmental Regulations, of any Hazardous Materials in the Leased Premises or in, on or under the Landlord's Property shall be done by Tenant, at its sole cost and expense, if such Hazardous Materials discovered were introduced in the Leased Premises or in, on or under the Landlord's Property by Tenant, its agents, employees or contractors. "Hazardous Materials" shall mean (i) any waste, material or substance (whether in the form of a liquid, a solid, or a gas and whether or not air-borne) which is deemed to be a pollutant or a contaminant, or to be hazardous, toxic, ignitable, reactive, infectious, explosive, corrosive, dangerous, harmful or injurious to public health or to the environment, and which is now or becomes regulated in the future by or under the authority of any applicable local, state or federal laws, judgments, ordinances, orders, rules, regulations, codes or other governmental restrictions or requirements, any amendments or successor(s) thereto, replacements thereof or publications promulgated pursuant thereto, relating to environmental quality, health, safety, contamination and clean-up (collectively "Environmental Regulations", and individually, "Environmental Regulation"); (ii) petroleum; (iii) asbestos and asbestos containing materials; (iv) any polychlorinated biphenyl; and (v) any radioactive material. Landlord and Tenant each agree that neither Landlord nor Tenant shall cause any Hazardous Materials to exist on, or to escape, seep, leak, spill or be discharged, emitted or released from Landlord's Property during the Term in violation of any applicable Environmental Regulation.

**5.9. Landlord's Indemnity.** Landlord hereby indemnifies Tenant, its successors and assigns, and their respective agents, contractors, employees, members, partners, officers, and directors ("Tenant Indemnified Parties"), and agrees to hold Tenant Indemnified Parties harmless from and against any and all losses, liabilities, damages, injuries, penalties, fines, costs, expenses and claims of any and every kind whatsoever, including reasonable attorney's fees and costs (collectively "Environmental Liabilities") paid, incurred or suffered by, or asserted against, Tenant Indemnified Parties with respect to, or as a direct or indirect result of, the presence on or under, or the escape, seepage, leakage, spillage, discharge, emission or release from Landlord's Property of any Hazardous Materials which was brought in to Landlord's Property by Landlord, its agents, employees, or their respective predecessors-in-interest, or caused by breach by Landlord, its agents, employees or their respective predecessors-in-interest of any Environmental Regulation to which Landlord is subject, and/or which was located upon the Leased Premises or Landlord's Property prior to the Commencement Date. This indemnity shall survive the termination of this Lease.

**5.10. Tenant's Indemnity.** Tenant hereby indemnifies Landlord, its successors and assigns, and their respective agents, contractors, employees, members, partners, officers, and directors ("Landlord Indemnified Parties"), and agrees to hold Landlord Indemnified Parties harmless from and against any and all Environmental Liabilities paid, incurred or suffered by, or asserted against, Landlord Indemnified Parties with respect to, or as a direct or indirect result of, the presence on or under, or the escape, seepage, leakage, spillage, discharge, emission or release from the Leased Premises or Landlord's Property of any Hazardous Materials which was brought in to the Leased Premises or Landlord's Property by Tenant, its agents or employees, or caused by breach by Tenant of any Environmental Regulation to which Tenant is subject. This indemnity shall survive the termination of this Lease.

**5.11. Remediation.** In the event Hazardous Materials are or become present at Landlord's Property as the result of any cause whatsoever (other than Hazardous Material which were brought in to the Leased Premises by Tenant, its agents, employees or invitees), and such presence of Hazardous Materials renders the Leased Premises Unusable (as hereinafter defined), then all rent shall be abated with respect to the portion of the Leased Premises so damaged until such time as the portion(s) of the Leased Premises so damaged are no longer rendered Unusable. For the purpose of this subsection, "Unusable" means that the Tenant does not have access to all or any portion of the Leased Premises because of the enforcement of any Environmental Regulation or the need to use all or any portion of the Leased Premises for remediation of any Hazardous Materials, or because the use of the Leased Premises would represent a risk to the health or safety of Tenant, Tenant's employees, agents or invitees.

## 6. INSURANCE

**6.1. Landlord's Insurance.** Landlord shall at all times during the Term of this Lease keep all improvements which are now or hereafter located on the Landlord's Property insured against loss or damage by fire and the extended coverage hazards at full insurance value with loss payable to Landlord, Landlord's mortgagee and such other parties as Landlord may designate, as their interests may appear.

Tenant agrees to reimburse Landlord for Tenant's Proportionate Share of the cost of such insurance. Tenant's Proportionate Share under this Section 6.1 shall be that proportion which the rentable area in the Leased Premises bears to the total rentable area in the buildings located from time to time on the Landlord's Property. Each month Tenant shall pay to Landlord an amount equal to one-twelfth (1/12) of its Proportionate Share of the estimated annual casualty insurance premium. Upon Landlord's receipt of any premium notice, Tenant shall upon demand make up any deficiency to the extent of its Proportionate Share of the estimated annual casualty insurance premium.

**6.2. Tenant's Insurance.** Tenant shall, at its expense, obtain and carry at all times during the Term of this Lease the policies of insurance listed in Lease Section 6.3 (a), naming Tenant, Landlord, and Landlord's mortgagee as co-insureds, to insure against injury to property, person, or loss of life arising out of the ownership, use, occupancy or maintenance of the Premises or conduct of Tenant's operations with limits as described in Subsection (a). Tenant shall furnish to Landlord a copy of such policies or an ACORD 25 certificate of Tenant's insurer evidencing such insurance, and shall, upon Landlord's request during the Term of this Lease, provide to Landlord and any party designated by Landlord a copy of the insurance policy endorsement or wording showing that Landlord and such other parties have been added as additional insureds. At least ten (10) days prior to the expiration of Tenant's policy, Tenant shall furnish Landlord with the renewal thereof, or Landlord may order such insurance and charge the cost thereof to Tenant.

**6.3. Tenant's Insurance Requirements.** Tenant is required to provide a certificate of insurance indicating that the following minimum insurance amounts are in place during the term of this Lease:

(a) **General Liability**

\$2,000,000 General Aggregate  
\$2,000,000 Products/Completed Operations Aggregate  
\$1,000,000 Personal & Advertising Injury  
\$1,000,000 Each Occurrence  
\$100,000 Fire Damage [see subsection (c) below]  
\$5,000 Medical Payments

(b) **Tenant's Contents.** Tenant shall be responsible for obtaining such insurance as it may deem advisable for all property located in the Leased Premises and in common areas. It is understood that the insurance carried by Landlord does not cover the risk of loss or damage to Tenant's property. Tenant waives any claim against Landlord and shall save Landlord harmless from any claim for loss or damage to contents, merchandise, fixtures, equipment or work done by Tenant regardless of the cause of any such damage or loss.

(c) **Builders' Risk Insurance.** Tenant shall be responsible for obtaining Builder's Risk insurance policy with industry standard coverage during the construction of the Tenant Improvements.

(d) **Increase in Fire Insurance.** Tenant agrees that it will not keep or use, in or upon the Leased Premises any article that may be prohibited by the standard form fire insurance policy. If Tenant's use or occupancy causes any increase in premiums for fire or casualty insurance on the Landlord's Property, or the Leased Premises, or any part thereof, above the rate of the least hazardous type of occupancy legally permitted in the Leased Premises, Tenant shall pay the additional premium on such insurance. No part of such additional premium resulting from the use or occupancy of another tenant shall be charged to Tenant under Sections 6.1 and/or 6.2 of this Lease. The Tenant shall also pay in such event any additional premium on any rent insurance policy that may be carried by the Landlord for its protection against rent loss through fire or other casualty. Landlord shall render bills for such additional premiums to Tenant at such times as Landlord may elect, and shall be due and payable by Tenant when rendered, and the amount thereof shall be deemed to be, and be paid as, additional rent.

**6.4. Hold Harmless.** Landlord shall not be liable for any loss, injury, death, or damage to persons or property which at any time may be suffered or sustained by Tenant or by any person whosoever may at any time be using or occupying or visiting the Landlord's Property or be in, on, or about the same, whether such loss, injury, death, or damage shall be caused by or in any way result from or arise out of any act, omission, or negligence of Tenant or of any occupant, subtenant, visitor, or user of any portion of the Landlord's Property, or shall result from or be caused by any other matter or thing whether of the same kind as or of a different kind than the matters or things above set forth, and Tenant shall indemnify Landlord against all claims, liability, loss, costs and fees, including, without limitation, attorneys fees, or

damage whatsoever on account of any such loss, injury, death, or damage. Tenant shall indemnify Landlord against all claims, liability, loss, costs and fees, including, without limitation, attorneys fees or damage arising by reason of the negligence or misconduct of Tenant, its agents or employees. Tenant hereby waives all claims against Landlord for damages to the building and improvements that are now on or hereafter placed or built on the Landlord's Property and to the property of Tenant in, on, or about the Landlord's Property, and for injuries to persons or property in or about the Landlord's Property, from any cause arising at any time. The preceding sentences shall not apply to loss, injury, death, or damage arising by reason of the negligence or misconduct of Landlord, its agents, or employees.

**6.5. Waiver of Subrogation.** Landlord and Tenant hereby release each other from any and all liability or responsibility to the other (or to anyone claiming through or under them by way of subrogation or otherwise) for any loss or damage to property caused by fire or any of the extended coverage or supplementary insurance contract casualties, even if such fire or other casualty shall have been caused by the fault or negligence of the party or anyone for whom such party may be responsible, provided, however, that this release shall be applicable and in force and effect only in respect to loss or damage occurring during such time as the releaser's policies shall contain a clause or endorsement to the effect that any such release shall not adversely affect or impair or prejudice the right of the releaser to recover thereunder. Landlord and Tenant each agree that their policies will include such a clause or endorsement so long as the same is obtainable and if not obtainable, shall so advise the other in writing and such notice shall release both parties from the obligation to obtain such a clause or endorsement.

## 7. DESTRUCTION OF LEASED PREMISES

**7.1. Destruction of Leased Premises.** If the building which includes the Leased Premises is damaged or partially destroyed by fire or other casualty to the extent of less than one-quarter (1/4) of the then cost of replacement thereof above foundation, the same shall be repaired as quickly as is practicable, by Landlord, except that the obligation of Landlord to rebuild shall be limited to repairing or rebuilding of Landlord's improvements. If the building, which includes the Leased Premises is so destroyed or damaged to the extent of one-quarter (1/4) or more of the then replacement cost thereof, then either (i) Landlord may elect not to repair or rebuild by giving notice in writing terminating this Lease, or (ii) Tenant may elect to terminate this Lease in which either event this Lease shall be terminated as of the date of such notice.

**7.2. Rebuilding by Landlord.** If Landlord shall undertake to restore or repair the building that includes the Leased Premises, it shall initiate and pursue the necessary work with all reasonable dispatch, in a manner consistent with sound construction methods.

**7.3. Abatement of Rent Upon Destruction of Premises.** If such damage or partial destruction renders the Leased Premises wholly untenable, the base rent shall abate until the Leased Premises have been restored and rendered tenable. If such damage or partial destruction renders the Leased Premises untenable only in part, the base rent shall abate proportionately as to the portion of the Leased Premises rendered untenable. Rent shall not abate under this section if the damage or destruction is caused by the negligence or misconduct of Tenant, its agents, employees, customers or invitees.

## 8. EFFECT OF CONDEMNATION

**8.1. Total Condemnation.** In the event that the Leased Premises or such part of the Leased Premises as will render the remainder untenable, shall be appropriated or taken under the power of eminent domain by any public or quasi-public authority, this Lease shall terminate and expire as of the date of taking.

**8.2. Partial Condemnation.** In the event of any other partial condemnation, Tenant shall have the option of terminating this Lease on the effective date of such condemnation by written notice to Landlord prior to such effective date, unless Landlord shall provide to Tenant within a reasonable time after such effective date reasonably comparable space to that taken. For purposes of this Section, reasonably comparable space shall mean space which is in the same general area as that condemned, is in a similar type of building and contains a similar floor plan, and is leased on similar economic and other terms as this Lease.

**8.3. Landlord's Damages.** In the event of any condemnation or taking, whether whole or partial, the Tenant shall not be entitled to any part of the award paid for such condemnation and Landlord is to receive the full amount of such award. The Tenant hereby expressly waives any rights or claim to any part thereof.

**8.4. Tenant's Damages.** Although all damages in the event of any condemnation are to belong to the Landlord whether such damages are awarded as compensation for diminution in value of the leasehold or to the fee of the Leased Premises, Tenant shall have the right to claim and recover from the condemning authority, but not from Landlord, such compensation as may be separately awarded or recoverable by Tenant in Tenant's own right on account of any and all damage to Tenant's business by reason of the condemnation, and for or on account of any cost or loss to which Tenant might be put in removing Tenant's property.

## 9. REMEDIES

**9.1. Events of Default by Tenant.** Upon the failure by Tenant to pay rent when due, Landlord may terminate this Lease or Tenant's right to use and occupy the Leased Premises by ten (10) days' written notice to Tenant unless Tenant within such ten (10) days pays all rent due. Upon the happening of any one or more of the following events: (a) the levying of a writ of execution or attachment on or against the property of Tenant; (b) the taking of any action for the voluntary dissolution of Tenant; (c) the commencement of a mechanic's lien foreclosure action against Tenant as a result of a mechanic's lien or claim therefor against the land or building of which the Leased Premises are a part; (d) the failure of Tenant to perform any other of the terms, provisions, and covenants of this Lease, Landlord may terminate this Lease or Tenant's right to use and occupy the Leased Premises by thirty (30) days' written notice to Tenant unless Tenant, within such thirty (30) day period, cures the specified default or, if the default is of a character which cannot be cured within thirty (30) days, the Tenant commences and diligently pursues the cure of such default within thirty (30) days.

**9.2. Re-Entry by Landlord.** Upon such termination of the Lease or termination of Tenant's right to use and occupy the Leased Premises as aforesaid, or if Tenant at any time



during the Term of this Lease vacates the Leased Premises or ceases operating said business in the entire or any appreciable part of the Leased Premises, except for causes beyond its control, Landlord may reenter the Leased Premises.

**9.3. Right to Relet.** Should Landlord elect to reenter, as herein provided, or should it take possession pursuant to legal proceedings or pursuant to any notice provided for by law, it may either terminate this Lease or it may from time to time without terminating this Lease, make such alterations and repairs as may be necessary in order to relet the Leased Premises, and relet the Leased Premises or any part thereof for such term or terms (which may be for a term extending beyond the Term of this Lease) and at such rental or rentals upon such other terms and conditions as Landlord in its sole discretion may deem advisable upon each such reletting. All rentals received by the Landlord from such reletting shall be applied, first, to the payment of any indebtedness other than rent due hereunder from Tenant to Landlord; second, to the payment of any costs of such alterations and repairs; third, to the payment of rent due and unpaid future rent as the same may become due and payable hereunder. If such rentals received from such reletting during the month be less than that to be paid during that month by Tenant hereunder, Tenant shall pay any such deficiency to Landlord. Such deficiency shall be calculated and paid monthly. No such re-entry or taking possession of said Leased Premises by Landlord shall be construed as an election in its part to terminate this Lease unless a written notice of such intention be given to Tenant or unless the termination thereof be decreed by a court of competent jurisdiction. Notwithstanding any such reletting without termination, Landlord may at any time thereafter elect to terminate this Lease for such previous breach. Should Landlord at any time reenter or terminate this Lease for any breach, in addition to any other remedies it may have, it may recover from Tenant all damages it may incur by reason of such breach, including the cost of recovering the Leased Premises and reasonable attorney's fees. All which amounts shall be immediately due and payable from Tenant to Landlord.

**9.4. Parties May Remedy Defaults.** In the event of any breach hereunder by either party, and in lieu of Landlord's terminating this Lease as herein provided, Landlord or Tenant respectively may immediately or at any time thereafter, after having given the other party the requisite notice to correct the same and that time for such correction having elapsed, cure such breach for the account and at the expense of the other party. If Landlord or Tenant at any time, by reason of such breach, is compelled to pay, or elects to pay, any sum of money or do any act which will require the payment of any sum of money, or incurs any expense, including reasonable attorney's fees, in instituting or prosecuting any action or proceeding to enforce such party's rights hereunder, the sum or sums so paid or incurred by such party, if paid or incurred by Landlord, shall be deemed to be additional rent hereunder and shall be due from Tenant to Landlord on the first day of the month following the payment of such respective sums, and if paid or incurred by Tenant, shall be due and payable by Landlord on demand with interest at the rate provided in Section 4.7 hereof. This option is given to the parties is intended for their protection and its existence shall not release the parties from the obligation to perform the terms and covenants herein provided to be performed by the respective parties or deprive Landlord of any legal rights which it may have by reason of any default of Tenant.

**9.5. Landlord's Remedies: Liquidated Damages.** In the event that at any time, whether before or after the commencement of the Term hereof, a bankruptcy petition shall be filed by Tenant or against Tenant and Tenant shall thereafter be adjudicated a bankrupt, or such petition shall be approved by the court, in any court or pursuant to any statute either of the United States or of any State, whether in bankruptcy, insolvency, for reorganization under Chapter XI or XIII of the Bankruptcy Act or under any other provisions of the Bankruptcy Act, or under the provisions of any law of like impact, for the appointment of a receiver or trustee of Tenant or for the property of Tenant, or if Tenant shall make an assignment of Tenant's property for the benefit of its creditors, or if proceedings are instituted in a court of competent jurisdiction for the reorganization, liquidation or involuntary dissolution of Tenant, then immediately upon the happening of any such event, and without any entry or other act by Landlord, this Lease and the Term and estate hereby granted (whether or not the Term shall therefore have commenced) shall expire, terminate and come to an end in the same manner and with the same force and effect as if the date of such occurrence were the date hereinbefore fixed for the expiration of the Term hereof. In the event of the termination of the Term hereof by the happening of any such event, Landlord shall forthwith upon such termination, and any other provisions of this Lease to the contrary notwithstanding, become entitled to recover as and for liquidated damages caused by such breach of the provisions of this Lease an amount equal to the difference between the then cash value of the rent reserved hereunder for the unexpired portion of the demised Term and the then cash rental value of the Leased Premises for such unexpired portion of the Term hereby demised unless the statute which governs or shall govern the proceeding in which such damages are to be provided limits or shall be entitled to prove as and for liquidated damages an amount equal to that allowed by or under such statute. The provision of this section shall be without prejudice to Landlord's right to prove in full damages for rent accrued prior to the termination of this Lease but not paid. This provision of this Lease shall be without prejudice of any rights given Landlord by any pertinent statute to prove any amounts allowed thereby. In making such computation, the then cash rental value of the Leased Premises shall be deemed prima facie to be the rent realized upon any reletting, if such reletting can be accomplished by Landlord within a reasonable time after such a termination of this Lease.

**9.6. Expenses of Landlord.** Upon the occurrence of an event of default by Tenant, notwithstanding anything herein to the contrary and whether or not Landlord terminates this Lease, Tenant shall promptly, upon request, reimburse Landlord for all costs and expenses reasonably incurred in enforcing this Lease, including reasonable attorneys' fees.

**9.7. Waiver of Redemption.** Tenant hereby expressly waives any and all rights of redemption granted by or under any present or future laws in the event of Tenant's being evicted or dispossessed for any cause, or in the event of Landlord's obtaining possession of the Leased Premises, by reason for the violation by Tenant of any of the covenants or conditions of this Lease, or otherwise.

**9.8. Defaults of Landlord.** Should Landlord be in default under the terms of this Lease, Landlord shall cure such default within thirty (30) days after written notice of such default from Tenant, or in the event such default is of such a character as to require more than thirty (30) days to cure, Landlord shall use due diligence to cure such default.

**9.9. Rights Cumulative.** All rights and remedies of Landlord and Tenant herein enumerated shall be cumulative and none shall exclude any other right or remedy allowed by Law, and said rights and remedies may be exercised and enforced concurrently and whenever and as often as occasion therefor arises.

## 10. MISCELLANEOUS

**10.1. Subordination.** At Landlord's option, this Lease shall be subordinated to any existing mortgages covering the Leased Premises, any extension or renewal thereof, or to any new mortgages which may be placed thereon from time to time, provided, however, anything to the contrary contained herein notwithstanding, every such mortgage shall contain a provision that the mortgagee shall recognize the validity of this Lease in the event of foreclosure of the Landlord's interest so long as Tenant shall not be in default under the terms of this Lease. Tenant shall execute whatever instruments may be required to effect such subordination.

**10.2. Sale of Property.** Landlord shall have the right at any time to sell, transfer or convey its interest in all or any portion(s) of Landlord's Property, improvements and buildings of which the Leased Premises are a part to any person, firm or corporation whatsoever, and upon any such sale, transfer or conveyances, Landlord shall cease to be liable under any covenant, condition or obligation imposed upon it by this Lease, or any of the terms and provisions thereof; provided, however, that any such sale, transfer or conveyance shall be subject to this Lease and that all of the Landlord's covenants and obligations contained herein shall be binding upon the subsequent owner or owners thereof; and provided further that such transferee from Landlord shall in writing assume the obligations of Landlord hereunder.

**10.3. Offset Statement.** Within ten (10) days after request therefor by Landlord, or in the event that upon any sale, assignment or hypothecation of the Leased Premises and/or all or any portion(s) of the Landlord's Property by Landlord an offset statement shall be required by Tenant; Tenant agrees to deliver in recordable form a certificate to any proposed mortgagee or purchaser, or to Landlord, certifying (if such be the case) that this Lease is in full force and effect and that there are no defenses or offsets thereto, or stating those claimed by Tenant.

**10.4. Attornment.** Tenant shall, in the event any proceedings are brought for the foreclosure of, or in the event of exercise of the power or sale under any mortgage made by the Landlord covering the Leased Premises, attorn to the purchaser upon any such foreclosure or sale and recognize such purchaser as the Landlord under this Lease.

**10.5. Recording.** Tenant shall not record this Lease without the written consent of Landlord; however, upon the request of either party hereto the other party shall join in the execution of memorandum or so called "short form" of this Lease for the purpose of recordation. Said memorandum or short form of this Lease shall describe the parties, the Leased Premises and the Term of this Lease and shall incorporate this Lease by reference.

**10.6. Excavations.** In case any excavation shall be made for buildings or improvements or for any other purpose upon the land adjacent to or near the Leased Premises, Tenant will afford to Landlord, or the person or persons, firms or corporations causing or

making such excavation, license to enter upon the Leased Premises for the purpose of doing such work as Landlord or such person or persons, firms or corporations shall deem to be necessary to preserve the walls or structures of the building from injury, and to protect the building by proper securing of foundations. Insofar as Landlord may have control over the same, all such work shall be done in a manner as will not materially interfere with the operation of Tenant's business in the Leased Premises.

**10.7. Access to Leased Premises.** Tenant shall permit Landlord, its agents and employees, upon reasonable prior notice, to enter the Leased Premises at all reasonable times, for the purpose of making repairs, additions or alterations to the building in which the Leased Premises are located, or for the purpose of inspecting (including without limitation inspections for determining the compliance by any laboratory and animal operations with minimum health and safety requirements or standards) or for the purpose of posting notices of availability for rent without any rebate or abatement of rent and without any liability for any loss of occupation or quiet enjoyment of the Leased Premises. For purposes of this section, the standards set forth in the Guide for the Care and Use of Laboratory Animals (which outlines the rules and regulations of the Animal Welfare Act and the Public Health Service Policy on Human Care and Use of Laboratory Animals) shall constitute such minimum standards. In addition, upon the request of Landlord, Tenant will promptly, within ten (10) days of Landlord's request, furnish to Landlord copies of all reports, filings and records required to be maintained by Tenant with respect to hazardous materials located or used in the Leased Premises, including all "Material Safety Data Sheets." The exercise by Landlord of any of its rights under this provision shall not be deemed an eviction or disturbance of Tenant's use and possession of the Leased Premises.

**10.8. Quiet Enjoyment.** If and so long as Tenant pays the rent reserved by this Lease and performs and observes all of the covenants and provisions hereof, Tenant shall quietly enjoy the Leased Premises, subject, however, to the terms of this Lease.

**10.9. Notices.** Any notice required or permitted under this Lease shall be deemed sufficiently given or served if sent by certified mail to Tenant at the address of the Leased Premises, and to Landlord at its office or such other place as it may designate in writing, and either party may, by like written notice at any time and from time to time, designate a different address to which notices shall subsequently be sent. Notices given in accordance with these provisions shall be deemed received when mailed.

**10.10. Holding Over.** In the event Tenant remains in possession of the Leased Premises after the expiration of this Lease and without the execution of a new Lease, it shall be deemed to be occupying said Leased Premises as a Tenant from month-to-month, subject to all conditions, provisions and obligations of this Lease insofar as the same are applicable to a month-to-month tenancy except that during any such month-to-month tenancy Tenant shall pay monthly Base Rent in an amount equal to 150% of the monthly Base Rent due and payable during the last month of the Term immediately preceding the commencement of the month-to-month tenancy. Nothing in this section shall operate to preclude Landlord from removing Tenant from the Leased Premises upon the expiration of this Lease.

**10.11. Consents by Landlord.** Whenever under this Lease provision is made for Tenant securing the written consent or approval of Landlord, such consent or approval will not be unreasonably withheld.

**10.12. Successors and Assigns.** The terms, covenants and conditions hereof shall be binding upon and inure to the successors in interest and assigns of the parties hereto.

**10.13. Governmental Regulations.** Tenant shall, at Tenant's sole cost and expense, materially comply with all of the requirements of all city, county, municipal, state, federal and other applicable governmental authorities, now in force, or which may hereafter be in force, pertaining to signs, installations, repairs and business operations in the Leased Premises and shall faithfully observe all statutes now in force or which may hereafter be in force. At any time during the Term of this Lease that Tenant is required to obtain a license from any local, state or federal regulatory body, for the use of hazardous materials, Tenant shall notify Landlord of the existence of such license and provide Landlord with a copy of such license. Upon termination of this Lease and prior to vacation of the Leased Premises, Tenant shall fully comply with all terms of such license and to the extent applicable, obtain a closure letter or similar written confirmation of compliance with all license terms and provide a copy of such letter or confirmation to Landlord.

**10.14. Certain Expenses of Landlord.** Any out-of-pocket expenses reasonably incurred by Landlord for purposes of considering or acting upon any request for consent or waiver under, or modification of, any of the provisions of this Lease, including reasonable attorney's fees, shall be promptly reimbursed by Tenant upon Landlord's request. Upon exercising its rights under this Section, Landlord shall submit to Tenant an estimate of the total out-of-pocket expenses expected to be incurred for Tenant's reasonable review and approval.

**10.15. Attorney's Fees.** All costs and expenses, including reasonable attorneys' fees, incurred by Landlord or Tenant in bringing or defending any claim, suit or cause of action commenced to enforce the obligations of the other party under this Lease shall be paid by the losing party to the prevailing party upon demand.

**10.16. Patriot Act.** Tenant hereby represents and warrants its compliance with all applicable anti-money laundering laws, including, without limitation, the USA Patriot Act, and the laws administered by the United States Treasury Department's Office of Foreign Assets Control ("OFAC"), including, without limitation, Executive Order 13224 ("Executive Order"). Tenant further represents and warrants (a) that it is not an entity on OFAC's List of Specially Designated Nationals and Blocked Persons, and it is not owned or controlled by or acting for or on behalf of any person or entity on OFAC's List of Specially Designated Nationals and Blocked Persons or any other list of persons or entities with whom Landlord is restricted by law from doing business; and (b) that it is not a person otherwise identified by government or legal authority as a person with whom Landlord is prohibited from transacting business. Tenant shall indemnify and hold Landlord harmless from and against any and all losses, damages, liabilities, costs, and expenses (including, without limitation, reasonable attorneys' fees and expenses) that are incurred by Landlord and/or its affiliates that derive from a claim made by a third party against Landlord and/or its affiliates arising from or alleged to arise from a misrepresentation made by Tenant hereunder or a breach of any covenant to be performed by Tenant hereunder.

**10.17. Force Majeure.** In the event that either Landlord or Tenant shall be delayed or hindered in or prevented from the performance of any act required hereunder by reason of strikes, lock outs, labor disputes, inability to procure materials, failure of power, restrictive governmental laws or regulations, riots, insurrection, war or other reason of a like nature not attributable to the negligence or fault of the party delayed in performing work or doing acts required under the terms of this Lease, then performance of such act shall be excused for the period of the unavoidable delay and the period for the performance of any such act shall be extended for an equivalent period. Provided, however, that this provision shall not operate to excuse Tenant from the timely payment of rent and other payments required by the terms of this Lease.

**10.18. General.** Nothing contained in this Lease shall be deemed or construed by the parties hereto or by any third party to create the relationship of principal and agent or of partnership or of joint venture or of any association between Landlord and Tenant, it being expressly understood and agreed that neither the method of computation of rent nor any other provisions contained in this Lease nor any acts of the parties hereto shall be deemed to create any relationship between Landlord and Tenant other than the relationship of landlord and tenant. No waiver of any default of Tenant or Landlord hereunder shall be implied from any omission by Landlord or Tenant any action on account of such default if such default persists or is repeated, and no express waiver shall affect any default other than the default specified in the express waiver and that only for the time and to the extent therein stated. One or more waivers of any covenant, term or condition of this Lease by Landlord or Tenant shall not be construed as a waiver of a subsequent breach of the same covenant, term or conditions. The consent or approval by Landlord to or of any act by Tenant requiring the Landlord's consent or approval shall not be deemed to waive or render unnecessary Landlord's consent or approval to or of any subsequent similar act by Tenant. The invalidity or unenforceability of any provision hereof shall not affect or impair any provision. The plural sense where there is more than one tenant and to either corporations, associations, partnership or individuals, male or females, shall in all instances be assumed as though in each case fully expressed. The laws of the State of Wisconsin shall govern the validity, performance and enforcement of this Lease. The submission of this Lease for examination does not constitute a reservation of or option for the Leased Premises and this Lease becomes effective as a Lease only upon execution and delivery thereof by Landlord and by Tenant. The headings contained herein are for convenience only and do not define, limit or construe the contents of the provisions hereof. All negotiations, representations and understandings between the parties are incorporated herein and may be modified or altered only by agreement in writing between the parties. This Lease may be executed in counterparts, each of which shall be deemed the original, but all of which together shall constitute one and the same instrument.

**10.19. No Option.** The submission of this Lease for examination does not constitute a reservation of or option for the Leased Premises, and this Lease shall become effective only upon execution and delivery thereof by both parties.

**10.20. Back-up Generator.** During the Term of this Lease and any Extended Term, Tenant shall have the ability to connect to the back-up generator serving the Leased Premises and that certain portion of Landlord's Property. Tenant may access up to 1,200 amps on a continuous basis during natural disasters or other emergencies that may interrupt or disable power service from the electric utility to the Leased Premises.

*[Signatures on following page.]*

IN WITNESS WHEREOF, Landlord and Tenant have executed this Lease and affixed their respective seals as of the day, month and year set forth below.

LANDLORD:  
UNIVERSITY RESEARCH PARK,  
INCORPORATED

TENANT:  
ARROWHEAD MADISON INC.

By: /s/ Aaron Olver  
Name: Aaron Olver  
Title: Assistant Secretary/Treasurer  
Date: January 8, 2016

By: /s/ Kenneth Myszowski  
Name: Kenneth Myszowski  
Title: Chief Financial Officer  
Date: January 8, 2016



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

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

1. I have reviewed this Quarterly Report on Form 10-Q of Arrowhead Research Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 9, 2016

/s/ CHRISTOPHER ANZALONE

---

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Date: February 9, 2016

/s/ Kenneth A. Myszkowski

---

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

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

I, Christopher Anzalone, Chief Executive Officer of Arrowhead Research Corporation (the "Company"), certify, pursuant to Rule 13(a)-14(b) or Rule 15(d)-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350, that (i) the Quarterly Report on Form 10-Q of the Company for the quarterly period ended December 31, 2015, 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: February 9, 2016

/s/ CHRISTOPHER ANZALONE

---

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

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

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

I, Kenneth A. Myszkowski, Chief Financial Officer of Arrowhead Research Corporation (the "Company"), certify, pursuant to Rule 13(a)-14(b) or Rule 15(d)-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350, that (i) the Quarterly Report on Form 10-Q of the Company for the quarterly period ended December 31, 2015, 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: February 9, 2016

/s/ Kenneth A. Myszkowski

---

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

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