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# UNITED STATES
# SECURITIES AND EXCHANGE COMMISSION

**Washington, D.C. 20549**

# FORM 10-Q

**(Mark one)**

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

**For the quarterly period ended March 31, 2016**

**OR**

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

**For the transition period from _____ to _____**

**Commission File Number 001-37581**

# Aclaris Therapeutics, Inc.

(Exact Name of Registrant as Specified in Its Charter)

| | |
|---|---|
| **Delaware**<br>(State or Other Jurisdiction of Incorporation or Organization) | **46-0571712**<br>(I.R.S. Employer Identification No.) |
| **101 Lindenwood Drive, Suite 400**<br>**Malvern, PA**<br>(Address of principal executive offices) | **19355**<br>(Zip Code) |

Registrant's telephone number, including area code: **(484) 324-7933**

N/A

(Former name, former address and former fiscal year, if changed since last report)

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 Securities Exchange Act of 1934:

| | |
|---|---|
| Large accelerated filer ☐ | Accelerated filer ☐ |
| Non-accelerated filer ☒<br>(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 Securities Exchange Act of 1934). Yes ☐ No ☒

The number of outstanding shares of the registrant's common stock, par value $0.00001 per share, as of the close of business on May 11, 2016 was 20,316,923.

**ACLARIS THERAPEUTICS, INC.**

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**Part I. FINANCIAL INFORMATION**

**Item 1. Financial Statements**

**ACLARIS THERAPEUTICS, INC.**
**CONDENSED CONSOLIDATED BALANCE SHEETS**
**(UNAUDITED)**

**(In thousands, except share and per share data)**

| | March 31, 2016 | December 31, 2015 |
|---|---|---|
| **Assets** | | |
| Current assets: | | |
| Cash and cash equivalents | $ 13,131 | $ 9,851 |
| Marketable securities | 72,115 | 75,017 |
| Prepaid expenses and other current assets | 1,587 | 1,656 |
| Total current assets | 86,833 | 86,524 |
| Marketable securities | — | 7,170 |
| Property and equipment, net | 417 | 360 |
| Other assets | 20 | 22 |
| Total assets | $ 87,270 | $ 94,076 |
| **Liabilities and Stockholders' Equity** | | |
| Current liabilities: | | |
| Accounts payable | $ 2,808 | $ 810 |
| Accrued expenses | 921 | 745 |
| Total current liabilities | 3,729 | 1,555 |
| Other liabilities | 330 | — |
| Total liabilities | 4,059 | 1,555 |
| **Stockholders' Equity:** | | |
| Preferred stock, $0.00001 par value; 10,000,000 shares authorized and no shares issued or outstanding at March 31, 2016 and December 31, 2015 | — | — |
| Common stock, $0.00001 par value; 100,000,000 shares authorized at March 31, 2016 and December 31, 2015; 20,316,923 and 20,157,503 shares issued and outstanding at March 31, 2016 and December 31, 2015, respectively | — | — |
| Additional paid-in capital | 139,080 | 135,503 |
| Accumulated other comprehensive income (loss) | 3 | (149) |
| Accumulated deficit | (55,872) | (42,833) |
| Total stockholders' equity | 83,211 | 92,521 |
| Total liabilities and stockholders' equity | $ 87,270 | $ 94,076 |

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

**ACLARIS THERAPEUTICS, INC.**
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS**
**(UNAUDITED)**

**(In thousands, except share and per share data)**

| | Three Months Ended March 31, | |
|---|---|---|
| | 2016 | 2015 |
| Revenue | $ — | $ — |
| Operating expenses: | | |
| Research and development | 9,535 | 1,737 |
| General and administrative | 3,604 | 892 |
| Total operating expenses | 13,139 | 2,629 |
| Loss from operations | (13,139) | (2,629) |
| Other income, net | 100 | 6 |
| Net loss | (13,039) | (2,623) |
| Accretion of convertible preferred stock | — | (657) |
| Net loss attributable to common stockholders | $ (13,039) | $ (3,280) |
| Net loss per share attributable to common stockholders, basic and diluted | $ (0.65) | $ (1.61) |
| Weighted average common shares outstanding, basic and diluted | 20,171,518 | 2,034,850 |
| Other comprehensive income: | | |
| Unrealized gain on marketable securities, net of tax of $0 | 142 | 3 |
| Foreign currency translation adjustments | 10 | — |
| Total other comprehensive income | 152 | 3 |
| Comprehensive loss | $ (12,887) | $ (2,620) |

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

**ACLARIS THERAPEUTICS, INC.**
**CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY**
**FOR THE PERIOD JANUARY 1, 2016 TO MARCH 31, 2016**
**(UNAUDITED)**

**(In thousands, except share data)**

| | Common Stock | | Additional Paid-in Capital | Accum-ulated Other Compre-hensive Income (Loss) | Accum-ulated Deficit | Total Stockholders' Equity |
|---|---|---|---|---|---|---|
| | Shares | Par Value | | | | |
| **Balance at December 31, 2015** | 20,157,503 | $ — | $ 135,503 | $ (149) | $ (42,833) | $ 92,521 |
| Issuance of common stock in connection with Vixen acquisition | 159,420 | — | 2,355 | — | — | 2,355 |
| Unrealized gain on marketable securities | — | — | — | 142 | — | 142 |
| Foreign currency translation adjustment | — | — | — | 10 | — | 10 |
| Stock-based compensation expense | — | — | 1,222 | — | — | 1,222 |
| Net loss | — | — | — | — | (13,039) | (13,039) |
| **Balance at March 31, 2016** | 20,316,923 | $ — | $ 139,080 | $ 3 | $ (55,872) | $ 83,211 |

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

**ACLARIS THERAPEUTICS, INC.**
**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**
**(UNAUDITED)**

**(In thousands)**

| | Three Months Ended March 31, | |
|---|---|---|
| | 2016 | 2015 |
| **Cash flows from operating activities**: | | |
| Net loss | $ (13,039) | $ (2,623) |
| Adjustments to reconcile net loss to net cash used in operating activities: | | |
| Depreciation expense | 21 | 3 |
| Stock-based compensation expense | 1,222 | 43 |
| Non-cash charges related to Vixen acquisition | 2,784 | — |
| Changes in operating assets and liabilities: | | |
| Prepaid expenses and other assets | 71 | (626) |
| Accounts payable | 2,008 | 385 |
| Accrued expenses | 39 | 16 |
| Net cash used in operating activities | (6,894) | (2,802) |
| **Cash flows from investing activities:** | | |
| Purchases of property and equipment | (40) | (77) |
| Proceeds from sales and maturities of marketable securities | 10,214 | 822 |
| Net cash provided by investing activities | 10,174 | 745 |
| **Cash flows from financing activities:** | | |
| Payment of deferred offering costs | — | (231) |
| Net cash used in financing activities | — | (231) |
| Net increase (decrease) in cash and cash equivalents | 3,280 | (2,288) |
| Cash and cash equivalents at beginning of period | 9,851 | 10,757 |
| Cash and cash equivalents at end of period | $ 13,131 | $ 8,469 |
| **Supplemental disclosure of non-cash investing and financing activities:** | | |
| Additions to property and equipment included in accounts payable | $ 40 | $ — |
| Accretion of convertible preferred stock to redemption value | $ — | $ 657 |
| Fair value of stock issued in connection with Vixen acquisition on date of issuance | $ 2,355 | $ — |

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

**ACLARIS THERAPEUTICS, INC.**
**NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**
**March 31, 2016**

**(Amounts in thousands, except share and per share data)**

## 1. Organization and Nature of Business

Aclaris Therapeutics, Inc. was incorporated under the laws of the State of Delaware in 2012. On July 17, 2015, Aclaris Therapeutics International Limited ("ATIL") was established under the laws of the United Kingdom as a wholly-owned subsidiary of Aclaris Therapeutics, Inc. On March 24, 2016, Vixen Pharmaceuticals, Inc. ("Vixen") became a wholly-owned subsidiary of Aclaris Therapeutics, Inc. (see Note 11). Aclaris Therapeutics, Inc. together with ATIL and Vixen, are referred to collectively as the "Company". The Company is a clinical-stage specialty pharmaceutical company focused on identifying, developing and commercializing innovative and differentiated drugs to address significant unmet needs in dermatology. The Company's lead drug candidate, A-101, is a proprietary high-concentration hydrogen peroxide topical solution that is being developed as a prescription treatment for seborrheic keratosis ("SK"), a common non-malignant skin tumor. The Company has completed three Phase 2 clinical trials, and is currently conducting three Phase 3 clinical trials, of A-101 in patients with SK.

### *Initial Public Offering*

On October 6, 2015, the Company's registration statement on Form S-1 relating to its initial public offering of its common stock (the "IPO") was declared effective by the Securities and Exchange Commission ("SEC"). The Company's common stock began trading on The NASDAQ Global Select Market on October 7, 2015. The IPO closed on October 13, 2015, and 5,000,000 shares of common stock were sold at a price to the public of $11.00 per share, for aggregate gross proceeds of $55,000. In addition, upon the closing of the IPO, all of the Company's outstanding convertible preferred stock was converted into an aggregate total of 11,677,076 shares of common stock.

On October 12, 2015, the underwriters of the IPO exercised in full their option to purchase additional shares, and on October 13, 2015, the Company sold 750,000 additional shares of common stock at a price to the public of $11.00 per share, for aggregate gross proceeds of $8,250.

The Company paid underwriting discounts and commissions of $4,428 to the underwriters in connection with the IPO, including the underwriters' exercise of their option to purchase additional shares. In addition, the Company incurred expenses of $2,272 in connection with the IPO. The net offering proceeds received by the Company, after deducting underwriting discounts, commissions and offering expenses, were $56,550.

### *Reverse Stock Split*

On September 24, 2015, the Company effected a 1-for-3.45 reverse stock split of its issued and outstanding shares of common stock and a proportional adjustment to the existing conversion ratios for each series of the Company's then-outstanding convertible preferred stock. Accordingly, all share and per share amounts for all periods presented in these condensed consolidated financial statements and notes thereto have been adjusted retroactively, where applicable, to reflect this reverse stock split and adjustment of the preferred stock conversion ratios.

### *Liquidity*

The Company's condensed consolidated financial statements have been prepared on the basis of continuity of operations, realization of assets and the satisfaction of liabilities in the ordinary course of business. At March 31, 2016, the Company had cash, cash equivalents and marketable securities of $85,246 and an accumulated deficit of $55,872. The Company has not generated any product revenues and has not achieved profitable operations. There is no assurance

that profitable operations will ever be achieved, and, if achieved, will be sustained on a continuing basis. In addition, development activities, clinical and pre-clinical testing, and commercialization of the Company's products will require significant additional financing. The future viability of the Company is dependent on its ability to generate cash from operating activities or to raise additional capital to finance its operations. The Company's failure to raise capital as and when needed could have a negative impact on its financial condition and ability to pursue its business strategies.

**2. Summary of Significant Accounting Policies**

***Basis of Presentation***

The accompanying condensed consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP"). The financial statements include the consolidated accounts of the Company and its wholly-owned subsidiaries. All intercompany transactions have been eliminated.

***Use of Estimates***

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of expenses during the reporting periods. Significant estimates and assumptions reflected in these financial statements include, but are not limited to, research and development expenses and the valuation of stock-based awards. Estimates are periodically reviewed in light of changes in circumstances, facts and experience. Actual results could differ from the Company's estimates.

***Unaudited Interim Financial Information***

The accompanying condensed consolidated balance sheet as of March 31, 2016, the condensed consolidated statements of operations and comprehensive loss for the three months ended March 31, 2016 and 2015, the condensed consolidated statement of stockholders' equity for the three months ended March 31, 2016, and the condensed consolidated statements of cash flows for the three months ended March 31, 2016 and 2015 are unaudited. The unaudited interim condensed consolidated financial statements have been prepared on the same basis as the audited annual financial statements contained in the Company's annual report on Form 10-K filed with the SEC on March 23, 2016 and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary for the fair statement of the Company's financial position as of March 31, 2016, the results of its operations and comprehensive loss for the three months ended March 31, 2016 and 2015 and its cash flows for the three months ended March 31, 2016 and 2015. The condensed consolidated balance sheet data as of December 31, 2015 was derived from audited financial statements but does not include all disclosures required by accounting principles generally accepted in the United States. The financial data and other information disclosed in these notes related to the three months ended March 31, 2016 and 2015 are unaudited. The results for the three months ended March 31, 2016 are not necessarily indicative of results to be expected for the year ending December 31, 2016, any other interim periods, or any future year or period. The unaudited interim financial statements of the Company included herein have been prepared, pursuant to the rules and regulations of the SEC. Certain information and footnote disclosures normally included in financial statements prepared in accordance with GAAP have been condensed or omitted from this report, as is permitted by such rules and regulations. These unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and the notes thereto for the year ended December 31, 2015 included in the Company's annual report on Form 10-K filed with the SEC on March 23, 2016.

***Significant Accounting Policies***

The Company's significant accounting policies are disclosed in the audited consolidated financial statements for the year ended December 31, 2015 included in the Company's annual report on Form 10-K filed with the SEC on March 23, 2016. Since the date of such financial statements, there have been no changes to the Company's significant accounting policies.

***Assets Held for Sale***

In order for an asset to be classified as held for sale there must be an active program to market the asset, and it must be probable the asset will be disposed of within one year. The carrying value of an asset held for sale is reported at the lower of its carrying value or its fair value less costs to sell. No additional depreciation expense is recognized once an asset is classified as held for sale. All current and historical balance sheet information for the Company's assets held for sale is included in prepaid expenses and other current assets in the accompanying condensed consolidated balance sheets. As of March 31, 2016 and December 31, 2015, $216 in assets were classified as held for sale.

***Recently Issued Accounting Pronouncements***

In March 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-09, *Improvements to Employee Share-Based Payment Accounting*. This ASU requires all tax effects of share-based payment settlements to be recorded through the income statement. Currently, tax benefits in excess of compensation cost, or "windfalls", are recorded in equity, and tax deficiencies, or "shortfalls", are recorded to equity to the extent of previous windfalls, and then to the income statement. In addition, under the new guidance, companies will be permitted to make a policy election to recognize the impact of forfeitures either when they occur, or on an estimated basis. Finally, this update simplifies withholding requirements to allow companies to withhold up to an employee's maximum tax rate without resulting in liability classification for the award. ASU 2016-09 is effective for annual reporting periods beginning after December 15, 2016, and early adoption is permitted. The Company has adopted the provisions of this standard early, the impact of which on its consolidated financial statements was not significant.

**3. Fair Value of Financial Assets and Liabilities**

The following tables present information about the Company's assets and liabilities measured at fair value on a recurring basis and indicate the level of the fair value hierarchy utilized to determine such fair values:

| | Fair Value Measurements as of March 31, 2016 Using: | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total |
| Assets: | | | | |
| Cash equivalents | $ 11,179 | $ — | $ — | $ 11,179 |
| Marketable securities | — | 72,115 | — | 72,115 |
| Total | $ 11,179 | $ 72,115 | $ — | $ 83,294 |

| | Fair Value Measurements as of December 31, 2015 Using: | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total |
| Assets: | | | | |
| Cash equivalents | $ 8,810 | $ 250 | $ — | $ 9,060 |
| Marketable securities | — | 82,187 | — | 82,187 |
| Total | $ 8,810 | $ 82,437 | $ — | $ 91,247 |

As of March 31, 2016 and December 31, 2015, the Company's cash equivalents consisted of money market funds with original maturities of less than three months. The Company valued its money market funds based on Level 1 inputs. In determining the fair value of its marketable securities as of March 31, 2016 and December 31, 2015, the Company relied on quoted prices for identical securities in markets that are not active, a Level 2 input. These quoted prices were obtained by the Company with the assistance of a third-party pricing service based on available trade, bid and other observable market data for identical securities. Quarterly, the Company compares the quoted prices obtained from the third-party pricing service to other available independent pricing information to validate the reasonableness of the quoted prices provided. The Company evaluates whether adjustments to third-party pricing is necessary and, historically, the Company has not made adjustments to quoted prices obtained from the third-party pricing service. During the three months ended March 31, 2016 and the year ended December 31, 2015, there were no transfers between Level 1, Level 2 and Level 3.

As of March 31, 2016 and December 31, 2015, the fair value of the Company's available for sale marketable securities by type of security was as follows:

| | March 31, 2016 | | | |
|---|---|---|---|---|
| | Amortized Cost | Gross Unrealized Gain | Gross Unrealized Loss | Fair Value |
| Marketable securities: | | | | |
| Corporate debt securities | $ 38,889 | $ 4 | $ (27) | $ 38,866 |
| Commercial paper | 6,999 | — | — | 6,999 |
| Asset-backed securities | 6,205 | 1 | — | 6,206 |
| U.S. government agency debt securities | 20,034 | 10 | — | 20,044 |
| Total marketable securities | $ 72,127 | $ 15 | $ (27) | $ 72,115 |

| | December 31, 2015 | | | |
|---|---|---|---|---|
| | Amortized Cost | Gross Unrealized Gain | Gross Unrealized Loss | Fair Value |
| Marketable securities: | | | | |
| Corporate debt securities | $ 46,270 | $ — | $ (125) | $ 46,145 |
| Commercial paper | 9,789 | — | — | 9,789 |
| Asset-backed securities | 6,234 | — | (14) | 6,220 |
| U.S. government agency debt securities | 20,048 | — | (15) | 20,033 |
| Total marketable securities | $ 82,341 | $ — | $ (154) | $ 82,187 |

As of March 31, 2016 and December 31, 2015, the Company's investments in corporate debt securities had credit ratings of A and above and remaining maturities of less than 12 months and less than 15 months, respectively.

**4. Property and Equipment, Net**

Property and equipment, net consisted of the following:

| | March 31, 2016 | December 31, 2015 |
|---|---|---|
| Computer equipment | $ 284 | $ 262 |
| Manufacturing equipment | 117 | 101 |
| Furniture and fixtures | 79 | 39 |
| Property and equipment, gross | 480 | 402 |
| Less: Accumulated depreciation | (63) | (42) |
| Total property and equipment, net | $ 417 | $ 360 |

Depreciation expense was $21 and $3 for the three months ended March 31, 2016 and 2015, respectively.

**5. Accrued Expenses**

Accrued expenses consisted of the following:

| | March 31, 2016 | December 31, 2015 |
|---|---|---|
| Research and development expenses | $ 178 | $ 123 |
| Employee-related expenses | 310 | — |
| Licensing fees | — | 250 |
| Vixen contract payable | 100 | — |
| Professional fees | 281 | 283 |
| Other | 52 | 89 |
| Total accrued expenses | $ 921 | $ 745 |

**6. Stockholders' Equity**

***Preferred Stock***

As of March 31, 2016 and December 31, 2015, the Company's certificate of incorporation, as amended and restated, authorized the Company to issue 10,000,000 shares of undesignated preferred stock. No shares of preferred stock were outstanding at March 31, 2016 or December 31, 2015.

***Common Stock***

As of March 31, 2016 and December 31, 2015, the Company's certificate of incorporation, as amended and restated, authorized the Company to issue 100,000,000 shares of $0.00001 par value common stock.

Each share of common stock entitles the holder to one vote on all matters submitted to a vote of the Company's stockholders. Common stockholders are entitled to receive dividends, as may be declared by the board of directors, if any, subject to any preferential dividend rights of any series of preferred stock that may be outstanding. No dividends had been declared through March 31, 2016.

**7. Stock-Based Awards**

***2012 Equity Compensation Plan***

Upon the 2015 Equity Incentive Plan (the "2015 Plan"), described below, becoming effective, no further grants may be made under the 2012 Equity Compensation Plan, as amended and restated (the "2012 Plan").

The Company granted a total of 1,140,524 stock options under the 2012 Plan, all of which were outstanding as of both March 31, 2016 and December 31, 2015. Stock options granted under the 2012 Plan vest over four years and expire after ten years. As required, the exercise price for the stock options granted under the 2012 Plan was not less than the fair value of common shares as determined by the Company as of the date of grant.

***2015 Equity Incentive Plan***

On September 15, 2015, the Company's board of directors adopted and on September 16, 2015, the Company's stockholders approved the 2015 Plan, which became effective in connection with the IPO in October 2015. The 2015 Plan provides for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit ("RSU") awards, performance stock awards, cash-based awards and other stock-based awards. The number of shares initially reserved for issuance under the 2015 Plan was 2,784,395 shares of common stock. The number of shares of common stock that may be issued under the 2015 Plan will automatically increase on January 1 of each year, beginning on January 1, 2016 and ending on January 1, 2025, in an amount equal to the lesser of (i) 4.0% of the shares of the Company's common stock outstanding on December 31 of the preceding calendar year or (ii) an amount determined by the Company's board of directors. The shares of common stock underlying any awards that expire, are otherwise terminated, settled in cash or repurchased by the Company under the 2015 Plan and the 2012 Plan will be added back to the shares of common stock available for issuance under the 2015 Plan. As of January 1, 2016, the number of shares of common stock that may be issued under the 2015 Plan was automatically increased by 806,300 shares. As of March 31, 2016, 2,856,695 shares remained available for grant under the 2015 Plan.

***Stock Option Valuation***

The weighted average assumptions the Company used to determine the fair value of stock options granted during the three months ended March 31, 2016 were as follows,:

| | Three Months Ended March 31, 2016 |
|---|---|
| Risk-free interest rate | 1.49 % |
| Expected term (in years) | 7.3 |
| Expected volatility | 99.97 % |
| Expected dividend yield | 0 % |

No stock options were granted during the three months ended March 31, 2015.

The Company recognizes compensation expense for only the portion of awards that are expected to vest. For the three months ended March 31, 2016, the Company applied an expected forfeiture rate of 0%.

***Stock Options***

The following table summarizes stock option activity under the 2012 Plan and 2015 Plan from January 1, 2016 through March 31, 2016:

| | Number of Shares | Weighted Average Exercise Price | Weighted Average Remaining Contractual Term (in years) | Aggregate Intrinsic Value |
|---|---|---|---|---|
| Outstanding as of December 31, 2015 | 1,738,524 | 13.23 | 9.51 | $ 24,722 |
| Granted | 68,500 | 20.28 | | |
| Exercised | — | — | | |
| Forfeited and canceled | — | — | | |
| Outstanding as of March 31, 2016 | 1,807,024 | $ 13.50 | 9.28 | $ 14,892 |
| Options vested and expected to vest as of March 31, 2016 | 1,807,024 | $ 13.50 | 9.28 | $ 14,892 |
| Options exercisable as of March 31, 2016 | 180,422 (1) | $ 1.27 | 8.49 | $ 3,189 |

(1) All options granted under the 2012 Plan are exercisable immediately, subject to a repurchase right in the Company's favor that lapses as the option vests. This amount reflects the number of shares under options that were vested, as opposed to exercisable, as of March 31, 2016.

The weighted average grant-date fair value of stock options granted during the three months ended March 31, 2016 was $16.75 per share.

The aggregate intrinsic value of stock options is calculated as the difference between the exercise price of the stock options and the fair value of the Company's common stock for those stock options that had exercise prices lower than the fair value of the Company's common stock.

***Restricted Stock Units***

A summary of the status of the Company's RSUs at March 31, 2016 and of changes in RSUs outstanding under the 2015 Plan for the three months ended March 31, 2016 is as follows:

| | Number of Shares | Weighted Average Grant Date Fair Value Per Share |
|---|---|---|
| Outstanding at December 31, 2015 | 53,800 | $ 28.68 |
| Granted | 13,700 | 20.28 |
| Vested | — | — |
| Forfeited and cancelled | — | — |
| Outstanding at March 31, 2016 | 67,500 | $ 26.98 |

The Company did not grant RSUs during the three months ended March 31, 2015.

***Stock-Based Compensation***

For the three months ended March 31, 2016 and 2015, the Company recorded stock-based compensation in the following expense categories of its statements of operations and comprehensive loss:

| | Three Months Ended March 31, | |
|---|---|---|
| | 2016 | 2015 |
| Research and development | $ 421 | $ 13 |
| General and administrative | 801 | 30 |
| | $ 1,222 | $ 43 |

As of March 31, 2016, the Company had an aggregate of $18,807 of unrecognized stock-based compensation cost, which is expected to be recognized over a weighted average period of 3.29 years.

**8. Net Loss per Share**

Basic and diluted net loss per share attributable to common stockholders was calculated as follows:

| | Three Months Ended March 31, | |
|---|---|---|
| | 2016 | 2015 |
| Numerator: | | |
| Net loss | $ (13,039) | $ (2,623) |
| Accretion of redeemable convertible preferred stock to redemption value | — | (657) |
| Net loss attributable to common stockholders | $ (13,039) | $ (3,280) |
| Denominator: | | |
| Weighted average shares of common stock outstanding | 20,171,518 | 2,730,427 |
| Less: Weighted average shares of unvested restricted common stock outstanding | — | (695,577) |
| Weighted average common shares outstanding used in calculating net loss per share attributable to common stockholders, basic and diluted | 20,171,518 | 2,034,850 |
| Net loss per share attributable to common stockholders, basic and diluted | $ (0.65) | $ (1.61) |

The Company's potentially dilutive securities, which include stock options, RSUs, preferred stock and shares of restricted common stock that were issued but have not yet vested, have been excluded from the computation of diluted net loss per share as the effect would be to reduce the net loss per share. Therefore, the weighted average number of common shares outstanding used to calculate both basic and diluted net loss per share attributable to common stockholders is the same. The following potential common shares, presented based on amounts outstanding at each period end, were excluded from the calculation of diluted net loss per share attributable to common stockholders for the three months ended March 31, 2016 and 2015 because including them would have had an anti-dilutive effect:

| | Three Months Ended March 31, | |
|---|---|---|
| | 2016 | 2015 |
| Stock options to purchase common stock | 1,807,024 | 500,262 |
| Restricted stock unit awards | 67,500 | — |
| Unvested restricted common stock | — | 639,611 |
| Convertible preferred stock (as converted to common stock) | — | 7,924,919 |
| | 1,874,524 | 9,064,792 |

**9. Commitments and Contingencies**

***Sublease***

In August 2013, the Company entered into a sublease agreement with a related party (see Note 10) for its office space with a term ending on November 30, 2016. As part of an amendment to the sublease agreement entered into in December 2014, the Company increased the amount of office space to be subleased and agreed to new monthly terms commencing in January 2015. On August 14, 2015, the Company further amended its sublease agreement to increase the square footage of the space and to extend the term of the lease to November 2019. Effective December 1, 2015, the Company further amended its sublease agreement to increase the square footage and agreed to new monthly sublease terms. Rent expense under operating leases was $52 and $26 for the three months ended March 31, 2016 and 2015, respectively. The Company recognizes rent expense on a straight-line basis over the lease period and has accrued for rent expense incurred but not yet paid.

As of March 31, 2016, future minimum lease payments under the sublease were as follows:

| **Years Ending December 31,** | | |
|---|---|---|
| 2016 | $ | 185 |
| 2017 | | 263 |
| 2018 | | 268 |
| 2019 | | 251 |
| 2020 | | — |
| Total | $ | 967 |

**10. Related Party Transactions**

In August 2013, the Company entered into a sublease agreement with NeXeption, Inc. ("NeXeption"), which was subsequently amended in December 2014 and August 2015. In August 2015, pursuant to an Assignment and Assumption Agreement, NeXeption, Inc. assigned all interests, rights, duties and obligations under the Amended and Restated Sublease to NST Consulting, LLC, a wholly owned subsidiary of NST, LLC. Mr. Stephen Tullman, the chairman of the Company's board of directors, was an executive officer of NeXeption and is also the manager of NST Consulting, LLC and NST, LLC. Total payments made during the three months ended March 31, 2016 and 2015 under these sublease agreements were $52 and $26, respectively.

In February 2014, the Company entered into a services agreement with NST, LLC (the "NST services agreement"), pursuant to which NST, LLC provided certain pharmaceutical development, management and other administrative services to the Company. Under the same agreement, the Company also provided services to another company under common control with the Company and NST LLC and was reimbursed by NST LLC for those services. In addition to Mr. Tullman's role as manager of NST, LLC, several of the Company's executive officers are members of NST, LLC.

The NST services agreement was amended in January 2015 pursuant to which NST, LLC assigned all interests, rights, duties and obligations under the NST services agreement to NST Consulting, LLC. Under the agreement, as amended, NST Consulting, LLC provides services to the Company and the Company provides services to another company under common control with the Company and NST Consulting, LLC. The NST services agreement was further amended in August 2015, and November 2015 to adjust the amount of services the Company is obligated to provide to NST Consulting, LLC and the amount of services NST Consulting, LLC is obligated to provide to the Company.

The Company may offset any payments owed by the Company to NST Consulting, LLC against payments that

are owed by NST Consulting, LLC to the Company for the provision of personnel, including consultants, to the Company. During the three months ended March 31, 2016 and 2015 gross expenses incurred by the Company under the services agreement totaled $140 and $123, respectively, and gross expenses charged by the Company totaled $36 and $112, respectively. For the three months ended March 31, 2016 and 2015 the Company recorded $64 and $75, respectively, of general and administrative expenses related to these transactions. For the three months ended March 31, 2016 the Company recorded $40 of research and development expenses related to these transactions. For the three months ended March 31, 2015, the Company recorded $64 as a reduction of research and development expenses related to these transactions. During the three months ended March 31, 2016 and 2015 payments made by the Company pursuant to the NST services agreement totaled $58, and $15, respectively. Related to this agreement, $29 was due to NST Consulting, LLC at March 31, 2016.

**11. Agreements Related to Intellectual Property**

*Assignment Agreement and Finder's Services Agreement*

In August 2012, the Company entered into an assignment agreement with the Estate of Mickey Miller, or the Miller Estate, under which the Company acquired some of the intellectual property rights covering A-101. In connection with obtaining the assignment of the intellectual property from the Miller Estate, the Company also entered into a separate finder's services agreement with KPT Consulting, LLC. In February 2016, under the terms of the assignment agreement and the finder's services agreement, the Company made a one-time milestone payment of $300 upon the dosing of the first human subject with A-101 in the Company's Phase 3 clinical trial. The payment was recorded as general and administrative expense during the three months ended March 31, 2016.

Under the finder's services agreement, the Company is obligated to make additional milestone payments of up to $1,000 in the aggregate upon the achievement of specified development and regulatory milestones and up to $4,500 upon the achievement of specified commercial milestones. Under each of the assignment agreement and the finder's services agreement, the Company is also obligated to pay royalties on sales of A-101 or related products, at low single-digit percentages of net sales, subject to reduction in specified circumstances. The Company has not made any royalty payments to date under either agreement. Both agreements will terminate upon the expiration of the last pending, viable patent claim of the patents acquired under the assignment agreement, but no sooner than 15 years from the effective date of the agreements.

*Stock Purchase Agreement with Vixen Pharmaceuticals, Inc. and License Agreement with Columbia University*

On March 24, 2016, the Company entered into a stock purchase agreement (the "Vixen Agreement") with Vixen, JAK1, LLC, JAK2, LLC and JAK3, LLC (together with JAK1, LLC and JAK2, LLC, the "Selling Stockholders") and Shareholder Representative Services LLC, a Colorado limited liability company, solely in its capacity as the representative of the Selling Stockholders. Pursuant to the Vixen Agreement, the Company acquired all shares of Vixen's capital stock from the Selling Stockholders (the "Vixen Acquisition"). Following the Vixen Acquisition, Vixen will continue as a wholly owned subsidiary of the Company. Pursuant to the Vixen Agreement, the Company paid $600 upfront and issued an aggregate of 159,420 shares of the Company's common stock to the Selling Stockholders. The Company is obligated to make annual payments of $100 on March 24th of each year, through March 24, 2022, with such amounts being creditable against specified future payments that may be paid under the Vixen Agreement.

The Company is obligated to make aggregate payments of up to $18,000 to the Selling Stockholders upon the achievement of specified pre-commercialization milestones for three products in the United States, the European Union and Japan, and aggregate payments of up to $22,500 upon the achievement of specified commercial milestones. With respect to any commercialized products covered by the Vixen Agreement, the Company is obligated to pay low single-digit royalties on net sales, subject to specified reductions, limitations and other adjustments, until the date that all of the patent rights for that product have expired, as determined on a country-by-country and product-by-product basis or, in specified circumstances, ten years from the first commercial sale of such product. If the Company sublicenses any of

Vixen's patent rights and know-how acquired pursuant to the Vixen Agreement, the Company will be obligated to pay a portion of any consideration the Company receives from such sublicenses in specified circumstances.

As a result of the transaction with Vixen, the Company became party to the Exclusive License Agreement, by and between Vixen and the Trustees of Columbia University in the City of New York ("Columbia"), dated as of December 31, 2015 (the "License Agreement"). Under the License Agreement, the Company is obligated to pay Columbia an annual license fee of $10, subject to specified adjustments for patent expenses incurred by Columbia and creditable against any royalties that may be paid under the License Agreement. The Company is also obligated to pay up to an aggregate of $11,600 upon the achievement of specified commercial milestones, including specified levels of net sales of products covered by Columbia patent rights and/or know-how, and royalties at a sub-single-digit percentage of annual net sales of products covered by Columbia patent rights and/or know-how, subject to specified adjustments. If the Company sublicenses any of Columbia's patent rights and know-how acquired pursuant to the License Agreement, it will be obligated to pay Columbia a portion of any consideration received from such sublicenses in specified circumstances. The royalties, as determined on a country-by-country and product-by-product basis, are payable until the date that all of the patent rights for that product have expired, the expiration of any market exclusivity period granted by a regulatory body or, in specified circumstances, ten years from the first commercial sale of such product. The License Agreement terminates on the date of expiration of all royalty obligations thereunder unless earlier terminated by either party for a material breach, subject to a specified cure period. The Company may also terminate the License Agreement without cause at any time upon advance written notice to Columbia.

The Company accounted for the transaction with Vixen as an asset acquisition as the arrangement did not meet the definition of a business pursuant to the guidance prescribed in Accounting Standards Codification Topic 805, *Business Combinations*. The Company concluded the transaction with Vixen did not meet the definition of a business because the transaction principally resulted in the acquisition of the License Agreement. The Company did not acquire tangible assets, processes, protocols or operating systems. In addition, at the time of the transaction, there were no activities being conducted related to the licensed patents. The Company will expense the acquired intellectual property asset as of the acquisition date on the basis that the cost of intangible assets purchased from others for use in research and development activities, and that have no alternative future uses, are expensed at the time the costs are incurred. Accordingly, the Company recorded the $600 upfront payment, the fair value of the shares of common stock issued of $2,355, and the present value of the six non-contingent annual payments as research and development expense in the three months ended March 31, 2016. Additionally, the Company will record as expense any contingent milestone payments or royalties in the period in which such liabilities are incurred.

**12. Income Taxes**

The Company did not record a federal or state income tax benefit for the Company's losses for the three months ended March 31, 2016 and 2015 due to the Company's conclusion that a valuation allowance is required.

**Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations**

*Certain statements contained in this Quarterly Report on Form 10-Q may constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. The words or phrases "would be," "will allow," "intends to," "will likely result," "are expected to," "will continue," "is anticipated," "estimate," "project," or similar expressions, or the negative of such words or phrases, are intended to identify "forward-looking statements." We have based these forward-looking statements on our current expectations and projections about future events. Because such statements include risks and uncertainties, actual results may differ materially from those expressed or implied by such forward-looking statements due to a number of factors, including risks related to:*

- *our estimates regarding expenses, future revenues, capital requirements and needs for additional financing;*
- *the success and timing of our preclinical studies and clinical trials and regulatory approval of protocols for future clinical trials;*
- *the difficulties in obtaining and maintaining regulatory approval of our product candidates, and the labeling under any approval we may obtain;*
- *our plans and ability to develop, manufacture and commercialize our product candidates;*
- *our failure to recruit or retain key scientific or management personnel or to retain our executive officers;*
- *the size and growth of the potential markets for our product candidates and our ability to serve those markets;*
- *regulatory developments in the United States and foreign countries;*
- *the rate and degree of market acceptance of any of our product candidates;*
- *obtaining and maintaining intellectual property protection for our product candidates and our proprietary technology;*
- *the successful development of our commercialization capabilities, including sales and marketing capabilities;*
- *recently enacted and future legislation and regulation regarding the healthcare system;*
- *the success of competing therapies and products that are or become available; and*
- *the performance of third parties, including contract research organizations and third-party manufacturers.*

*These and other factors that could cause or contribute to these differences are described in this Quarterly Report on Form 10-Q in Part II – Item 1A, "Risk Factors," and under similar captions in our other filings with the Securities and Exchange Commission. Statements made herein are as of the date of the filing of this Form 10-Q with the Securities and Exchange Commission and should not be relied upon as of any subsequent date. Unless otherwise required by applicable law, we do not undertake, and we specifically disclaim, any obligation to update any forward-*

*looking statements to reflect occurrences, developments, unanticipated events or circumstances after the date of such statement.*

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our unaudited condensed consolidated financial statements and related notes that appear in Item 1 of this Quarterly Report on Form 10-Q and with our audited consolidated financial statements and related notes for the year ended December 31, 2015, which are included in our 2015 Annual Report on Form 10-K filed with the Securities and Exchange Commission, or SEC, on March 23, 2016.

**Overview**

We are a clinical-stage specialty pharmaceutical company focused on identifying, developing and commercializing innovative and differentiated drugs to address significant unmet needs in dermatology. Our lead drug candidate, A-101 Topical Solution, is a proprietary high-concentration hydrogen peroxide topical solution that we are developing as a prescription treatment for seborrheic keratosis, or SK, a common non-malignant skin tumor. We have completed three Phase 2 clinical trials of A-101 in over 300 patients with SK. In these trials, following one or two applications of A-101, we observed clinically relevant and statistically significant improvements in clearing SK lesions on the face, trunk and extremities of the body. In the first quarter of 2016, we initiated two multi-center, double-blind Phase 3 clinical trials and one open label Phase 3 clinical trial of A-101 in patients with SK. If the results of these trials are favorable, we plan to submit a New Drug Application, or NDA, for A-101 for the treatment of SK to the U.S. Food and Drug Administration, or FDA, in the fourth quarter of 2016. We also intend to develop A-101 as a prescription treatment for common warts, also known as verruca vulgaris, and A-102, a proprietary gel dosage form of hydrogen peroxide, as a prescription treatment for SK and common warts. In the fourth quarter of 2015, we initiated a Phase 2 clinical trial to evaluate A-101 for the treatment of common warts. We have also in-licensed the exclusive, worldwide rights to inhibitors of the Janus kinase, or JAK, family of enzymes, for specified dermatological conditions. We plan to develop these JAK inhibitors, ATI-50001 (formerly A-201) and ATI-50002 (formerly A-301), as potential treatments for hair loss associated with an autoimmune skin disease known as alopecia areata, or AA, and potentially for other dermatological conditions. We intend to in-license or acquire additional drug candidates for other dermatological conditions to build a fully integrated dermatology company.

Since our inception in July 2012, we have devoted substantially all of our resources to organizing and staffing our company, business planning, raising capital, developing A-101 for the treatment of SK, building our intellectual property portfolio, developing our supply chain and engaging in other discovery and clinical activities in dermatology. Through the date of this report, we have not generated any revenue and have financed our operations with $71.5 million of gross proceeds from sales of our convertible preferred stock and net proceeds of $56.6 million from our initial public offering, or IPO, in October 2015. We do not expect to generate significant revenue unless and until we obtain marketing approval for and commercialize A-101 for the treatment of SK or one of our other current or future drug candidates.

Since our inception, we have incurred significant operating losses. Our net loss was $20.6 million for the year ended December 31, 2015 and $13.0 million for the three months ended March 31, 2016. As of March 31, 2016, we had an accumulated deficit of $55.9 million. We expect to incur significant expenses and operating losses for the foreseeable future as we advance our drug candidates from discovery through preclinical development and clinical trials, and seek regulatory approval and pursue commercialization of any approved drug candidate. In addition, if we obtain marketing approval for any of our drug candidates, we expect to incur significant commercialization expenses related to product manufacturing, marketing, sales and distribution. In addition, we may incur expenses in connection with the in-license or acquisition of additional drug candidates. Furthermore, we have incurred and expect to continue to incur additional costs associated with operating as a public company, including significant legal, accounting, investor relations and other expenses that we did not incur as a private company. As a result, we will need substantial additional funding to support our continuing operations and pursue our growth strategy. Until such time as we can generate significant revenue from product sales, if ever, we expect to finance our operations through the sale of equity, debt financings or other capital sources, including potential collaborations with other companies or other strategic transactions. We may be unable to

raise additional funds or enter into such other agreements or arrangements when needed on commercially acceptable terms, or at all. If we fail to raise capital or enter into such agreements as, and when, needed, we may have to significantly delay, scale back or discontinue the development and commercialization of one or more of our drug candidates or delay our pursuit of potential in-licenses or acquisitions.

**Components of Our Results of Operations**

***Revenue***

We have not generated any revenue since our inception and do not expect to generate any revenue from the sale of products in the near future.

***Research and Development Expenses***

Research and development expense consists of expenses incurred in connection with the discovery and development of our drug candidates. We expense research and development costs as incurred. These expenses include:

- expenses incurred under agreements with contract research organizations, or CROs, as well as investigative sites and consultants that conduct our clinical trials and preclinical studies;
- manufacturing scale-up expenses and the cost of acquiring and manufacturing preclinical and clinical trial materials and commercial materials, including manufacturing validation batches;
- outsourced professional scientific development services;
- employee-related expenses, which include salaries, benefits and stock-based compensation;
- depreciation of manufacturing equipment;
- payments made under agreements with third parties under which we have acquired or licensed intellectual property;
- expenses relating to regulatory activities, including filing fees paid to regulatory agencies; and
- laboratory materials and supplies used to support our research activities.

Research and development activities are central to our business model. Drug candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials and long-term toxicology studies. We expect our research and development expenses to increase significantly over the next several years as we increase personnel costs, including stock-based compensation, continue Phase 3 clinical trials of A-101 in patients with SK, and conduct other clinical trials and prepare regulatory filings for A-101 and our other drug candidates.

The successful development of our drug candidates is highly uncertain. At this time, we cannot reasonably estimate or know the nature, timing and costs of the efforts that will be necessary to complete the remainder of the development of, or when, if ever, material net cash inflows may commence from any of our other drug candidates. This uncertainty is due to the numerous risks and uncertainties associated with the duration and cost of clinical trials, which vary significantly over the life of a project as a result of many factors, including:

- the number of clinical sites included in the trials;

· the length of time required to enroll suitable patients;

· the number of patients that ultimately participate in the trials;

· the number of doses patients receive;

· the duration of patient follow-up; and

· the results of our clinical trials.

Our expenditures are subject to additional uncertainties, including the terms and timing of regulatory approvals, and the expense of filing, prosecuting, defending and enforcing any patent claims or other intellectual property rights. We may not succeed in achieving regulatory approval for any of our drug candidates. We may obtain unexpected results from our clinical trials. We may elect to discontinue, delay or modify clinical trials of some drug candidates or focus on others. A change in the outcome of any of these variables with respect to the development of a drug candidate could mean a significant change in the costs and timing associated with the development of that drug candidate. For example, if the FDA or other regulatory authorities were to require us to conduct clinical trials beyond those that we currently anticipate, or if we experience significant delays in enrollment in any of our clinical trials, we could be required to expend significant additional financial resources and time on the completion of clinical development. Drug commercialization will take several years and millions of dollars in development costs.

***General and Administrative Expenses***

General and administrative expenses consist principally of salaries and related costs for personnel in executive, administrative, finance, and legal functions, including stock-based compensation, travel expenses and recruiting expenses. Other general and administrative expenses include facility related costs, patent filing and prosecution costs and professional fees for marketing, legal, auditing and tax services, insurance costs, as well as payments made under our related-party services agreement and milestone payments under our finder’s services agreement.

We anticipate that our general and administrative expenses will increase as a result of increased personnel costs, including stock-based compensation, expanded infrastructure and higher consulting, legal and tax-related services associated with maintaining compliance with stock exchange listing and SEC requirements, accounting and investor relations costs, director compensation, and director and officer insurance premiums associated with being a public company. Additionally, if and when we believe regulatory approval of a drug candidate appears likely, we anticipate payroll and other expenses will increase as a result of our preparation for commercial operations related to the sales and marketing of that candidate.

***Other Income, Net***

Other income, net consists of interest earned on our cash, cash equivalents and marketable securities, interest expense, and gains and losses on transactions denominated in foreign currencies.

**Critical Accounting Policies and Significant Judgments and Estimates**

This discussion and analysis of our financial condition and results of operations is based on our condensed consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities in our condensed consolidated financial statements. On an ongoing basis, we evaluate our estimates and judgments, including those related to accrued expenses

and stock-based compensation. We base our estimates on historical experience, known trends and events and various other factors that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We believe there have been no material changes to our critical accounting policies and use of estimates as disclosed in the footnotes to our audited consolidated financial statements for the year ended December 31, 2015 included in our 2015 Annual Report on Form 10-K filed with the SEC on March 23, 2016.

**Results of Operations**

***Comparison of Three Months Ended March 31, 2016 and 2015***

The following table summarizes our results of operations for the three months ended March 31, 2016 and 2015:

| | Three Months Ended March 31, | | |
|---|---|---|---|
| | 2016 | 2015 | Change |
| | (In thousands) | | |
| Revenue | $ — | $ — | $ — |
| Operating expenses: | | | |
| Research and development | 9,535 | 1,737 | 7,798 |
| General and administrative | 3,604 | 892 | 2,712 |
| Total operating expenses | 13,139 | 2,629 | 10,510 |
| Loss from operations | (13,139) | (2,629) | (10,510) |
| Other income, net | 100 | 6 | 94 |
| Net loss | $ (13,039) | $ (2,623) | $ (10,416) |

*Research and Development Expenses*

Research and development expenses were $9.5 million for the three months ended March 31, 2016, compared to $1.7 million for the three months ended March 31, 2015. The increase of $7.8 million was primarily attributable to $3.4 million in expenses associated with the Vixen acquisition, an increase of $1.4 million in pre-clinical development expenses related to the JAK inhibitor technology, a $2.0 million increase in costs associated with the initiation of the Phase 3 clinical trials for A-101, and a $0.3 million increase in costs related to the Phase 2 trial for A-101.

*General and Administrative Expenses*

General and administrative expenses were $3.6 million for the three months ended March 31, 2016, compared to $0.9 million for the three months ended March 31, 2015. The increase of $2.7 million was primarily attributable to increases of $0.5 million in payroll-related expenses due to increased headcount, $0.8 million in higher stock-based compensation expense, $0.4 million in legal and patent expenses related to the Vixen acquisition, $0.4 million in professional fees associated with being a public company, and a $0.3 million one-time milestone payment in the first quarter of 2016 pursuant to the finder’s services agreement related to A-101.

*Other Income, Net*

Other income, net increased period over period as a result of higher invested balances of marketable securities as a result of funds received from our IPO.

**Liquidity and Capital Resources**

Since our inception, we have not generated any revenue and have incurred net losses and negative cash flows from our operations. We have financed our operations since inception through $71.5 million of gross proceeds from sales of our convertible preferred stock and net proceeds of $56.6 million from our IPO in October 2015.

As of March 31, 2016, we had cash, cash equivalents and marketable securities of $85.2 million. Cash in excess of immediate requirements is invested in accordance with our investment policy, primarily with a view to liquidity and capital preservation.

We currently have no ongoing material financing commitments, such as lines of credit or guarantees, that are expected to affect our liquidity over the next five years, other than our sublease obligations and contingent obligations under acquisition and intellectual property licensing agreements, each of which are described below.

***Initial Public Offering***

On October 13, 2015, we closed our IPO in which we sold 5,750,000 shares of common stock at a price to the public of $11.00 per share, for aggregate gross proceeds of $63.3 million. We paid underwriting discounts and commissions of $4.4 million, and we also incurred expenses of $2.3 million in connection with the IPO. As a result, the net offering proceeds to us, after deducting underwriting discounts and commissions and IPO expenses, were $56.6 million. See Note 1 to our unaudited condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q for additional details.

***Cash Flows***

The following table summarizes our cash flows for each of the periods presented:

| | Three Months Ended March 31, | |
|---|---|---|
| | 2016 | 2015 |
| | (In thousands) | |
| Cash used in operating activities | $ (6,894) | $ (2,802) |
| Cash provided by investing activities | 10,174 | 745 |
| Cash used in financing activities | — | (231) |
| Net increase (decrease) in cash and cash equivalents | $ 3,280 | $ (2,288) |

*Operating Activities*

During the three months ended March 31, 2016, operating activities used $6.9 million of cash, primarily resulting from our net loss of $13.0 million partially offset by cash provided by our changes in our operating assets and liabilities of $2.1 million and by non-cash adjustments of $4.0 million. Net cash provided by changes in our operating assets and liabilities during the three months ended March 31, 2016 consisted of a $2.0 million increase in accounts payable and a $0.1 million decrease in prepaid expenses and other current assets. The increase in accounts payable was primarily due to expenses incurred in connection with the commencement of our Phase 3 clinical trials for A-101 and the timing of vendor invoicing and payments. The decrease in prepaid expenses and other current assets was primarily due to work performed related to our clinical trials.

During the three months ended March 31, 2015, operating activities used $2.8 million of cash, primarily resulting from our net loss of $2.6 million and cash used in changes in our operating assets and liabilities of $0.2 million. Net cash used in changes in our operating assets and liabilities during the three months ended March 31, 2015 consisted primarily of a $0.6 million increase in prepaid expenses and other current assets, partially offset by a $0.4 million increase in accounts payable. The increase in accounts payable was primarily due to an increase in accruals for personnel

costs related to annual bonuses, which were paid out in December 2015. The increase in prepaid expenses and other current assets was primarily due to a prepayment for manufacturing scale-up expenses and clinical trials.

*Investing Activities*

During the three months ended March 31, 2016, investing activities provided $10.2 million of cash, consisting of proceeds from sales and maturities of marketable securities of $10.3 million, partially offset by purchases of equipment of $0.1 million.

During the three months ended March 31, 2015, investing activities provided $0.7 million of cash, consisting of proceeds from sales and maturities of marketable securities of $0.8 million, partially offset by purchases of equipment of $0.1 million.

*Financing activities*

We had no cash flows from financing activities during the three months ended March 31, 2016.

During the three months ended March 31, 2015, financing activities used $0.2 million as a result of payments of IPO costs.

***Funding Requirements***

We plan to focus in the near term on the development, regulatory approval and potential commercialization of A-101 for the treatment of SK. We anticipate we will incur net losses for the next several years as we complete clinical development of A-101 for the treatment of SK and continue research and development of A-101 for the treatment of common warts, A-102 for the treatment of SK and common warts and ATI-50001 and ATI-50002 for the treatment of AA. In addition, we plan to continue to invest in discovery efforts to explore additional drug candidates, potentially build commercial capabilities and expand our corporate infrastructure. We may not be able to complete the development and initiate commercialization of these programs if, among other things, our clinical trials are not successful or if the FDA does not approve our drug candidate arising out of our current clinical trials when we expect, or at all.

Our primary uses of capital are, and we expect will continue to be, compensation and related expenses, clinical costs, external research and development services, laboratory and related supplies, legal and other regulatory expenses, and administrative and overhead costs. Our future funding requirements will be heavily determined by the resources needed to support development of our drug candidates.

As a publicly traded company, we have incurred and will continue to incur significant legal, accounting and other expenses that we were not required to incur as a private company. In addition, the Sarbanes-Oxley Act of 2002, as well as rules adopted by the SEC and The NASDAQ Stock Market, requires public companies to implement specified corporate governance practices that were not applicable to us prior to our IPO. We expect ongoing compliance with these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly.

We believe that our existing cash, cash equivalents and marketable securities are sufficient to fund our operating expenses and capital expenditure requirements for a period greater than 12 months from March 31, 2016 based on our current operating assumptions, including the completion of our three ongoing Phase 3 clinical trials for A-101 for the treatment of SK, the submission of our NDA with the FDA for the approval of A-101 for the treatment of SK in the United States and the completion of our Phase 2 clinical trials for A-101 for the treatment of common warts. These assumptions may prove to be wrong, and we could utilize our available capital resources sooner than we expect. We expect that we will require additional capital to commercialize A-101 for the treatment of SK, if we receive regulatory approval, and to pursue in-licenses or acquisitions of other drug candidates. If we receive regulatory approval for A-101

for the treatment of SK, we expect to incur significant commercialization expenses related to product manufacturing, sales, marketing and distribution, depending on where we choose to commercialize. Additional funds may not be available on a timely basis, on commercially acceptable terms, or at all, and such funds, if raised, may not be sufficient to enable us to continue to implement our long-term business strategy. If we are unable to raise sufficient additional capital, we may need to substantially curtail our planned operations and the pursuit of our growth strategy.

We may raise additional capital through the sale of equity or convertible debt securities. In such an event, your ownership will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of a holder of our common stock.

Because of the numerous risks and uncertainties associated with research, development and commercialization of pharmaceutical drugs, we are unable to precisely estimate the exact amount of our working capital requirements. Our future funding requirements will depend on many factors, including:

· the number and characteristics of the drug candidates we pursue;

·the scope, progress, results and costs of researching and developing our drug candidates, and conducting preclinical studies and clinical trials;

·the timing of, and the costs involved in, obtaining regulatory approvals for our drug candidates;

·the cost of manufacturing our drug candidates and any drugs we successfully commercialize;

·our ability to establish and maintain strategic collaborations, licensing or other arrangements and the financial terms of such agreements;

·the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims, including litigation costs and the outcome of such litigation; and

·the timing, receipt and amount of sales of, or milestone payments related to or royalties on, our current or future drug candidates, if any.

**Contractual Obligations and Commitments**

We sublease office space in Malvern, Pennsylvania under an operating sublease agreement with a term through November 2019 that, as amended, requires future rental payments of $0.2 million during the year ending December 31, 2016, an aggregate of $0.5 million during the years ending December 31, 2017 and 2018, and $0.3 million during the year ending December 31, 2019.

Under the assignment agreement pursuant to which we acquired intellectual property, we have agreed to pay royalties on sales of A-101 or related products at rates ranging in low single-digit percentages of net sales, as defined in the agreement. Under the related finder’s services agreement, we have agreed to make aggregate payments of up to $1.0 million upon the achievement of specified pre-commercialization milestones, such as clinical trials and regulatory approvals, as described in the agreement. We have also agreed to make aggregate payments of up to $4.5 million upon the achievement of specified commercial milestones. In addition, we have agreed to pay royalties on sales of A-101 or related products at a low single-digit percentage of net sales, as defined in the agreement.

Under a commercial supply agreement with a third party, we have agreed to pay a termination fee of up to $0.4 million in the event we terminate the agreement without cause or the third party terminates the agreement for cause.

Under a license agreement with Rigel that we entered into in August 2015, we have agreed to make aggregate payments of up to $80.0 million upon the achievement of specified pre-commercialization milestones, such as clinical trials and regulatory approvals. Further, we have agreed to pay up to an additional $10.0 million to Rigel upon the achievement of a second set of development milestones. With respect to any products we commercialize under the agreement, we will pay Rigel quarterly tiered royalties on our annual net sales of each product developed using the licensed JAK inhibitors at a high single-digit percentage of annual net sales, subject to specified reductions.

Under a commercial license agreement with other third parties that we entered into in November 2015, we have agreed to make aggregate payments of up to $2.35 million upon the achievement of specified pre-commercialization milestones, such as clinical trials and regulatory approvals. We will pay an annual maintenance fee of $50,000, to be credited against any milestone fees or royalties paid in each calendar year. With respect to any products we commercialize under the agreement, we will pay tiered royalties at a low to mid-single-digit percentage of annual net sales, subject to specified reductions, as determined on a country-by-country and product-by-product basis, until the date that all of the patent rights for that product have expired, or in specified countries under specified circumstances, ten years from the first commercial sale of such product.

Under a stock purchase agreement with Vixen Pharmaceuticals, Inc., or Vixen, that we entered into in March 2016, we have agreed to make aggregate payments of up to $18.0 million upon the achievement of specified pre-commercialization milestones for three products covered by Vixen patent rights in the United States, the European Union and Japan, and aggregate payments of up to $22.5 million upon the achievement of specified commercial milestones for products covered by the Vixen patent rights. We will pay an annual fee of $100,000, to be credited against any specified future payments made in each year. With respect to any products we commercialize under the agreement, we will pay royalties at a low single-digit percentage of annual net sales, subject to specified reductions, limitations and other adjustments, until the date that all of the patent rights for that product have expired, as determined on a country-by-country and product-by-product basis or, in specified circumstances, ten years from the first commercial sale of such product.

Under a license agreement with the Trustees of Columbia University in the City of New York, or Columbia University, that we became party to as a result of the stock purchase agreement with Vixen, we are obligated to pay up to an aggregate of $11.6 million upon the achievement of specified commercial milestones, including specified levels of net sales of products covered by Columbia University patent rights and/or know-how, and royalties at a sub-single-digit percentage of annual net sales of products covered by Columbia University patent rights and/or know-how, subject to specified adjustments. The royalties, as determined on a country-by-country and product-by-product basis, are payable until the date that all of the patent rights for that product have expired, the expiration of any market exclusivity period granted by a regulatory body or, in specified circumstances, ten years from the first commercial sale of such product.

We enter into contracts in the normal course of business with CROs for clinical trials, preclinical research studies and testing, manufacturing and other services and products for operating purposes. These contracts generally provide for termination upon notice, and therefore we believe that our non-cancelable obligations under these agreements are not material.

**Off-Balance Sheet Arrangements**

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

**Emerging Growth Company Status**

The Jumpstart Our Business Startups Act of 2012 permits an “emerging growth company” such as us to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies until those standards would otherwise apply to private companies. We have irrevocably elected to “opt out”

of this provision and, as a result, we will comply with new or revised accounting standards when they are required to be adopted by public companies that are not emerging growth companies.

**Item 3. Quantitative and Qualitative Disclosures about Market Risk**

We are exposed to market risk related to changes in interest rates. Our cash equivalents and marketable securities consist of money market funds, asset-backed securities, commercial paper, corporate debt securities and government agency debt. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates. Our marketable securities are subject to interest rate risk and will fall in value if market interest rates increase. However, due to the short-term nature and risk profile of our investment portfolio, we do not expect that an immediate 10% change in market interest rates would have a material effect on the fair market value of our investment portfolio. We have the ability to hold our marketable securities until maturity, and therefore we do not expect our operating results or cash flows to be affected significantly by the effect of a change in market interest rates on our investments.

**Item 4. Controls and Procedures**

(a) *Evaluation of Disclosure Controls and Procedures*

The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, refers to controls and procedures that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that such information is accumulated and communicated to a company’s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure.

In designing and evaluating our disclosure controls and procedures, management recognizes that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Additionally, in designing disclosure controls and procedures, our management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a control system, misstatements due to error or fraud may occur and not be detected.

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures as of March 31, 2016, the end of the period covered by this Quarterly Report on Form 10-Q. Based upon such evaluation, our Chief Executive Officer and our Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of such date at the reasonable assurance level.

(b) *Changes in Internal Controls Over Financial Reporting*

There have not been any changes in our internal controls over financial reporting during our fiscal quarter ended March 31, 2016 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## PART II. OTHER INFORMATION

### Item 1. Legal Proceedings

From time to time, we may be subject to litigation and claims arising in the ordinary course of business. We are not currently a party to any material legal proceedings and we are not aware of any pending or threatened legal proceeding against us that we believe could have a material adverse effect on our business, operating results, cash flows or financial condition.

### Item 1A. Risk Factors

Our business is subject to risks and events that, if they occur, could adversely affect our financial condition and results of operations and the trading price of our securities. Except for the specified risk factors related to our intellectual property described below, our risk factors have not changed materially from those described in "Part I, Item 1A. Risk Factors" of our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, filed with the SEC on March 23, 2016.

***If we are unable to obtain and maintain patent protection for our drug candidates, or if the scope of the patent protection obtained is not sufficiently broad, our competitors could develop and commercialize technology and drugs similar or identical to ours, and our ability to successfully commercialize our technology and drug candidates may be impaired.***

Our success depends in large part on our ability to obtain and maintain patent protection in the United States and other countries with respect to our drug candidates. We seek to protect our proprietary position by filing patent applications in the United States and abroad related to our drug candidates.

The patent prosecution process is expensive and time-consuming, however, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our development output before it is too late to obtain patent protection. We may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the rights to patents licensed to third parties. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. In addition, the laws of foreign countries may not protect our rights to the same extent as the laws of the United States or vice versa. For example, European patent law restricts the patentability of methods of treatment of the human body more than United States law does. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we cannot know with certainty whether we or our licensors were the first to make the inventions claimed in our patents or pending patent applications, or that we or our licensors were the first to file for patent protection of such inventions. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights are highly uncertain. Our pending and future patent applications may not result in patents being issued that protect our technology or drugs, in whole or in part, or which effectively prevent others from commercializing competitive technologies and drugs. Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of our patents or narrow the scope of our patent protection.

Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents. On September 16, 2011, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law. The Leahy-Smith Act includes a number of significant changes to United States patent law. These include provisions that affect the way patent applications are

prosecuted and may also affect patent litigation. The United States Patent Office recently developed new regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first to file provisions, only became effective on March 16, 2013. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. However, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business and financial condition.

Moreover, we may be subject to a third-party preissuance submission of prior art to the U.S. Patent and Trademark Office, or USPTO, or become involved in opposition, derivation, reexamination, *inter partes* review, post-grant review or interference proceedings challenging our patent rights or the patent rights of others. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our technology or drugs and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize drugs without infringing third-party patent rights. In addition, if the breadth or strength of protection provided by our patents and patent applications that we own or license is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future drug candidates.

Even if our patent applications that we own or license issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors from competing with us or otherwise provide us with any competitive advantage. Our competitors may be able to circumvent our patents by developing similar or alternative technologies or drugs in a non-infringing manner. For example, the patent applications that we exclusively license from Columbia University that are primarily directed to methods of treating hair loss disorders with JAK inhibitors may not issue or may issue with claims directed to the use of specific JAK inhibitors, which may not be relevant to the JAK inhibitors we intend to commercialize or the JAK inhibitors that our competitor's may commercialize.

In addition, the issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our patents may be challenged in the courts or patent offices in the United States and abroad. Such challenges may result in loss of exclusivity or freedom to operate or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar or identical technology and drugs, or limit the duration of the patent protection of our technology and drugs. Our issued U.S. patents, with claims directed to treatment of SK and acrochordons with A-101, are scheduled to expire in 2022. Certain issued U.S. patents relating to our JAK inhibitors, ATI-50001 and ATI-50002, are scheduled to expire in 2023 and additional U.S. patents, with claims specifically directed to our JAK inhibitors, are scheduled to expire in 2030. The issued U.S. patent that we exclusively licensed from Columbia University with claims directed to the use of a third party JAK inhibitor for the treatment of hair loss disorders, including AA and androgenic alopecia**,** or AGA, and inducing hair growth, expires in 2031. Given the amount of time required for the development, testing and regulatory review of new drug candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our patent portfolio may not provide us with sufficient rights to exclude others from commercializing drugs similar or identical to ours.

***We may become involved in lawsuits to protect or enforce our patents or other intellectual property, which could be expensive, time-consuming and unsuccessful.***

Competitors may infringe our issued patents or other intellectual property. Our pending applications cannot be enforced against third parties practicing the technology claimed in such applications unless and until a patent issues from such applications. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. Any claims we assert against perceived infringers could provoke these parties to assert counterclaims against us alleging that we infringe their patents or that our patents are invalid or unenforceable. In a patent infringement proceeding, a court may decide that a patent of ours is invalid or unenforceable, in whole or in part, construe the patent's claims narrowly or refuse to stop the other party from using the technology at issue on the grounds

that our patents do not cover the technology. An adverse result in any litigation proceeding could put one or more of our patents at risk of being invalidated or interpreted narrowly. We may find it impractical or undesirable to enforce our intellectual property against some third parties. For instance, we are aware of third parties that have marketed high-concentration hydrogen peroxide solutions over the internet for the treatment of SK. These parties do not appear to have regulatory authority, and we have not authorized them in any way to market these products. However, to date we have refrained from seeking to enforce our intellectual property rights against these third parties due to the transient nature of their activities. With respect to ATI-50001 and ATI-50002, if we do not elect to exercise our first right to do so, Rigel may enforce the licensed patents relating to ATI-50001 and ATI-50002 against any infringing third party in the field of dermatology. In addition, Rigel has the first right, but not the obligation, to enforce the licensed patents relating to ATI-50001 and ATI-50002 against any infringing party outside of the field of dermatology. With respect to the licensed patents from JAKPharm and Key Organics, if we do not elect to exercise our first right to do so, JAKPharm and Key Organics may enforce the licensed patents relating to an infringement of the licensed JAK compounds against any infringing third party in the field of dermatology. In addition, JAKPharm and Key Organics has the right to enforce the licensed patents relating to an infringement of the licensed JAK compounds against any infringing party outside of the field of dermatology. With respect to the licensed patents from Columbia University, Columbia University has the first right to initiate, control and defend any proceedings related to the validity, enforceability or infringement of the licensed patent rights and in doing so, has no obligation to assert more than one licensed patent in one jurisdiction against a third party. With respect to the licensed patents from Columbia University, if Columbia University does not elect to exercise its first right to do so, we may enforce the licensed patent rights relating to an infringement of the licensed patent rights against any infringing third party.

***If we breach our license agreement with JAKPharm and Key Organics, it could compromise our development and commercialization efforts for our JAK inhibitors.***

In November 2015, we entered into an exclusive license agreement with JAKPharm and Key Organics, which grants us the rights to certain patent rights and other intellectual property owned by them relating to certain novel JAK inhibitors. If we materially breach or fail to perform any provision under this license agreement, including failure to make payments to JAKPharm and Key Organics when due for royalties and failure to use commercially reasonable efforts to develop and commercialize a JAK inhibitor, JAK Pharm and Key Organics have the right to terminate our license, and upon the effective date of such termination, our right to practice the licensed JAKPharm and Key Organics' patent rights and other intellectual property would end. Any uncured, material breach under the license agreement could result in our loss of rights to practice the patent rights and other intellectual property licensed to us under the license agreement with JAKPharm and Key Organics.

***If we breach our agreement with the selling stockholders of Vixen, it could compromise our development and commercialization efforts for our JAK inhibitors.***

In March 2016, we entered into a stock purchase agreement with the stockholders of Vixen, pursuant to which we purchased all of the stock of Vixen and assumed its license agreement with Columbia University. If we fail to use commercially reasonable efforts to develop and commercialize a JAK inhibitor for AA and a JAK inhibitor for AGA, the license agreement with Columbia University will be transferred to the selling stockholders of Vixen following any adverse resolution of any dispute relating thereto. Upon the effective date of such transfer, our right to practice the licensed Columbia University patent rights and know-how would end.

***If we breach our agreement with Columbia University, it could compromise our development and commercialization efforts for our JAK inhibitors.***

In March 2016, we assumed a license agreement with Columbia University, which grants us the right under certain patent rights and know-how owned by Columbia University relating to the use of JAK inhibitors to treat hair-loss disorders. If we materially breach or fail to perform any provision under this license agreement, including failure to make payments to Columbia University when due for royalties and failure to use commercially reasonable efforts to develop and commercialize a licensed product, Columbia University has the right to terminate our license, and upon the effective date of such termination, our right to practice the licensed Columbia University patent rights and know-how would end. Any uncured, material breach under the license agreement could result in our loss of rights to practice the patent rights and know-how licensed to us under the license agreement, and, to the extent such patent rights and know-how relate to our JAK inhibitors, it could compromise our development and commercialization efforts for ATI-50001 or ATI-50002 or the novel JAK inhibitors licensed from JAKPharm and Key Organics.

***We may not be able to protect our intellectual property rights throughout the world.***

Filing, prosecuting and defending patents on our drug candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States. For example, the use of A-101 for the treatment of SK is currently covered in patents in the United States, Australia, India and New Zealand, but not in the European Union or other countries. Our JAK inhibitors being used in the development of ATI-50001 and ATI-50002 are currently covered in patents and applications in the United States, the European Union, and other major foreign markets. Our novel JAK inhibitors licensed from JAKPharm and Key Organics are currently covered in pending applications in the United States, Canada and Europe. Additionally, only one U.S. patent has issued in the patent portfolio licensed from Columbia University, which is directed to the use of a third party JAK inhibitor for the treatment of hair loss disorders and applications are pending in the United States, Europe, Japan and South Korea. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, we may not be able to prevent third parties from practicing our invention in such countries. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and may export otherwise infringing products to territories where we have patent protection, but enforcement rights are not as strong as those in the United States. These products may compete with our drug candidates and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of some countries do not favor the enforcement of patents and other intellectual property protection, which could make it difficult for us to stop the infringement of our patents generally. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful.

Many countries, including European Union countries, India, Japan and China, have compulsory licensing laws under which a patent owner may be compelled under specified circumstances to grant licenses to third parties. In those countries, we may have limited remedies if patents are infringed or if we are compelled to grant a license to a third party, which could materially diminish the value of those patents. This could limit our potential revenue opportunities. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

***We may need to license intellectual property from third parties, and such licenses may not be available or may not be available on commercially reasonable terms.***

A third party may hold intellectual property, including patent rights that are important or necessary to the development of our drug candidates. For example, we exclusively license intellectual property from Rigel in the field of dermatology related to our JAK inhibitors, ATI-50001 and ATI-50002. We also exclusively license intellectual property from JAKPharm and Key Organics in the field of dermatology related to other novel JAK inhibitors and we also exclusively license intellectual property from Columbia University related to the use of JAK inhibitors for the treatment of hair loss disorders. It may be necessary for us to use the patented or proprietary technology of third parties to commercialize our drug candidates, in which case we would be required to obtain a license from these third parties on commercially reasonable terms, or our business could be harmed, possibly materially.

***If we do not obtain protection under the Hatch-Waxman Amendments by extending the patent term and obtaining data exclusivity for our drug candidates, our business may be materially harmed.***

Our commercial success will largely depend on our ability to obtain and maintain patent and other intellectual property in the United States and other countries with respect to our proprietary technology, drug candidates and our target indications. Our issued U.S. patents, with claims directed to treatment of SK and acrochordons with A-101, are scheduled to expire in 2022. Certain issued U.S. patents relating to our JAK inhibitors, ATI-50001 and ATI-50002, are scheduled to expire in 2023 and additional U.S. patents, with claims specifically directed to our JAK inhibitors, are scheduled to expire in 2030. The issued U.S. patent relating to the use of our novel JAK inhibitors licensed from JAKPharm and Key Organics is scheduled to expire in 2030. The issued U.S. patent licensed from Columbia University relating to the use of a third party JAK inhibitor for the treatment of hair loss disorders, including AA and AGA, and inducing hair growth, expires in 2031. Given the amount of time required for the development, testing and regulatory review of new drug candidates, patents protecting our drug candidates might expire before or shortly after such candidates begin to be commercialized. We expect to seek extensions of patent terms in the United States and, if available, in other countries where we are prosecuting patents.

Depending upon the timing, duration and specifics of FDA marketing approval of our drug candidates, one or more of our U.S. patents may be eligible for limited patent term restoration under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent restoration term of up to five years beyond the normal expiration of the patent as compensation for patent term lost during development and the FDA regulatory review process, which is limited to the approved indication (or any additional indications approved during the period of extension). This extension is limited to only one patent that covers the approved product. However, the applicable authorities, including the FDA and the USPTO in the United States, and any equivalent regulatory authority in other countries, may not agree with our assessment of whether such extensions are available, and may refuse to grant extensions to our patents, or may grant more limited extensions than we request. We may not be granted an extension because of, for example, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents or otherwise failing to satisfy applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request.

If we are unable to extend the expiration date of our existing patents or obtain new patents with longer expiry dates, our competitors may be able to take advantage of our investment in development and clinical trials by referencing our clinical and preclinical data to obtain approval of competing products following our patent expiration and launch their product earlier than might otherwise be the case.

**Item 2. Unregistered Sales of Equity Securities and Use of Proceeds**

(b) Use of Proceeds from Public Offering of Common Stock

On October 6, 2015, our Registration Statement on Form S-1, as amended (File No. 333-206437) was declared effective in connection with our IPO, pursuant to which we sold 5,750,000 shares of our common stock, including the full exercise of the underwriters' option to purchase additional shares, at a price to the public of $11.00 per share. The IPO closed on October 13, 2015, and, as a result, we received net proceeds of $56.6 million (after underwriters' discounts and commissions of $4.4 million and additional offering related costs of $2.3 million). The joint managing underwriters of the offering were Jefferies LLC and Citigroup Global Markets Inc.

No expenses incurred by us in connection with our IPO were paid directly or indirectly to (i) any of our officers or directors or their associates, (ii) any persons owning 10% or more of any class of our equity securities, or (iii) any of our affiliates, other than payments in the ordinary course of business to officers for salaries and to non-employee directors as compensation for board or board committee service.

There has been no material change in the planned use of proceeds from our IPO from that described in the final prospectus filed by us with the Securities and Exchange Commission on October 8, 2015 pursuant to Rule 424(b) of the Securities Act. Through March 31, 2016, we have not used any of the net proceeds, as we have used cash on hand as of the IPO date to fund the continued research and development of A-101 and our other drug candidates and for working capital and other general corporate purposes.

**Item 6. Exhibits**

The exhibits listed on the Exhibit Index hereto are filed or incorporated by reference (as stated therein) as part of this Quarterly Report on Form 10-Q.

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

ACLARIS THERAPEUTICS, INC.

Date: May 11, 2016

By: /s/ Neal Walker
Neal Walker
President and Chief Executive Officer
*(On behalf of the Registrant)*

Date: May 11, 2016

By: /s/ Frank Ruffo
Frank Ruffo
Chief Financial Officer
*(Principal Financial Officer)*

## Exhibit Index

| Exhibit No. | Document |
|---|---|
| 2.1*+# | Stock Purchase Agreement, by and among the Registrant, Vixen Pharmaceuticals, Inc., JAK1, LLC, JAK2, LLC, JAK3, LLC and Shareholder Representative Services LLC, dated as of March 24, 2016. |
| 3.1 | Amended and Restated Certificate of Incorporation of the Registrant (incorporated herein by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (File No. 001-37581), filed with the Commission on October 13, 2015). |
| 3.2 | Amended and Restated Bylaws of the Registrant (incorporated herein by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K (File No. 001-37581), filed with the Commission on October 13, 2015). |
| 10.1*# | Exclusive License Agreement, by and between The Trustees of Columbia University in the City of New York and Vixen Pharmaceuticals, Inc., dated as of December 31, 2015. |
| 10.2*# | Third Amendment to Services Agreement by and between the Registrant and NST Consulting, LLC, dated as of November 24, 2015. |
| 10.3*# | Fourth Amendment to Services Agreement by and between the Registrant and NST Consulting, LLC, dated as of January 8, 2016. |
| 10.4*# | Fifth Amendment to Services Agreement by and between the Registrant and NST Consulting, LLC, dated as of January 8, 2016. |
| 10.5* | Third Amendment to Amended and Restated Sublease, by and between the Registrant and NST Consulting, LLC, dated as of February 8, 2016 |
| 31.1* | Certification of Principal Executive Officer under Section 302 of the Sarbanes-Oxley Act. |
| 31.2* | Certification of Principal Financial Officer under Section 302 of the Sarbanes-Oxley Act. |
| 32.1** | Certifications of Principal Executive Officer and Principal Financial Officer under Section 906 of the Sarbanes-Oxley Act. |
| 101.INS | XBRL Instance Document |
| 101.SCH | XBRL Taxonomy Extension Schema Document |
| 101.CAL | XBRL Taxonomy Extension Calculation Linkbase Document |
| 101.DEF | XBRL Taxonomy Extension Definition Linkbase Document |
| 101.LAB | XBRL Taxonomy Extension Label Linkbase Document |
| 101.PRE | XBRL Taxonomy Extension Presentation Linkbase Document |

+ Pursuant to Item 601(b)(2) of Regulation S-K promulgated by the SEC, certain exhibits and schedules to this agreement have been omitted, the Registrant hereby agrees to furnish supplementary to the SEC, upon its request, any or all of such omitted exhibits or schedules.

# Confidential treatment has been requested with respect to portions of this exhibit, indicated by asterisks, which has been filed separately with the SEC.

* Filed herewith.

** These certifications are being furnished solely to accompany this quarterly report pursuant to 18 U.S.C. Section 1350, and are not being filed for purposes of Section 18 of the Exchange Act and are not to be incorporated by reference into any filing of the registrant, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

# STOCK PURCHASE AGREEMENT

**THIS STOCK PURCHASE AGREEMENT** is entered into as of March 24, 2016, by and among **ACLARIS THERAPEUTICS INC**., a Delaware corporation (the "***Purchaser***"); **VIXEN PHARMACEUTICALS, INC**., a Delaware corporation (the "***Company***"); JAK1, LLC, a Delaware limited liability company ("***JAK1***"), JAK2, LLC, a Delaware limited liability company ("***JAK2***"); JAK3, LLC, a Delaware limited liability company ("***JAK3***") (JAK1, JAK2 and JAK3 are referred to herein each as a "***Selling Stockholder***" and, collectively, as the "***Selling Stockholders***"); and Shareholder Representative Services LLC, a Colorado limited liability company, solely in its capacity as the Stockholders' Representative (the "***Stockholders' Representative***"). Certain capitalized terms used in this Agreement are defined in **Exhibit A**.

## RECITALS

The Selling Stockholders desire to sell, and the Purchaser desires to purchase, all of the issued and outstanding shares of capital stock of the Company (the "***Shares***"), for the consideration and on the terms set forth in this Agreement.

## AGREEMENT

The parties, intending to be legally bound, agree as follows:

### SECTION 1. Sale and Purchase of Shares; Related Transactions

**1.1 Sale and Purchase of Shares**. At the Closing (as defined below), the Selling Stockholders shall sell, assign, transfer and deliver the Shares to the Purchaser, and the Purchaser shall purchase the Shares from the Selling Stockholders, free from any Encumbrance, on the terms and subject to the conditions set forth in this Agreement (the "***Transaction***").

**1.2 Purchase Price.**

**(a)** The aggregate purchase price to be paid by the Purchaser for the Shares (the "***Consideration***") is as follows (with each type of Consideration being non-refundable and non-creditable, except as specifically provided in Section 1.2(a)(iii) below and subject to Section 9.6, which may result in adjustments to the Consideration payable hereunder) and to be delivered to the Selling Stockholders in accordance with their respective Pro Rata Percentages as set forth on Schedule 5:

**(i)** cash paid at the Closing in the aggregate amount of $600,000 (the "***Initial Cash Payment***"), to be paid by wire transfer of immediately available funds to the various accounts set forth in the Funds Flow Memorandum executed by the parties at Closing; and

**(ii)** 159,420 shares of restricted common stock, par value $0.0001 per share, of the Purchaser issued at the Closing (the "***Purchaser Equity***"), which Purchaser Equity will be issuable only against delivery by each Selling Stockholder of a Market Stand-Off Agreement in the form presented by the Purchaser; and

**(iii)** cash paid in the amount of $100,000 on the first anniversary of the Closing and each anniversary thereafter for five (5) years (total of six (6) payments) (each an "***Anniversary Payment***"). Each Anniversary Payment shall be fully creditable solely against any Additional Payments payable by the Purchaser pursuant to Section 1.2(a)(vi) below; and

**(iv)** as, if and when a Regulatory Milestone (as described on Schedule 1) is achieved by or on behalf of any Purchaser Person, cash paid in the amount set forth opposite such Regulatory Milestone on Schedule 1 ("***Regulatory Milestone Payments***"); *provided, however*, that for the avoidance of doubt, in no circumstances will the total Regulatory Milestone Payments for Patent Products payable pursuant to this Section 1.2(a)(iv) exceed in the aggregate $18 million; and

**(v)** as, if and when a Commercial Milestone (as described on Schedule 2) is achieved by or on behalf of any Purchaser Person, cash paid in the amount set forth opposite such Commercial Milestone on Schedule 2 ("***Commercial Milestone Payments***"); *provided, however*, that for the avoidance of doubt, in no circumstances will the total Commercial Milestone Payments for Patent Products payable by the Purchaser to the Selling Stockholders pursuant to this Section 1.2(a)(v) exceed in the aggregate $22.5 million; and

**(vi)** cash payments in an amount equal to a percentage of aggregate worldwide Annual Net Sales of all Patent Products, Know-how Products and Additional Products sold by or on behalf of all Purchaser Persons during the applicable Additional Purchase Price Term, in the amounts set forth on Schedule 3 with respect to Patent Products and Know-how Products and Schedule 4 with respect to Additional Products ("***Additional Payments***").

**(1)** Subject to the Patent Floor, Know-how Floor or Additional Product Floor, as applicable, if after the Closing (or as otherwise provided in the last sentence of this Section 1.2(a)(vi)(1)), the Purchaser (a) reasonably determines in good faith that it is necessary to obtain a license from a Third Party for Third Party Patent Rights and/or Know-how in order to Develop, Manufacture or Commercialize a Product or Additional Product in a country in the Territory and to pay a royalty under such license (including in connection with the settlement of a patent infringement claim); or (b) shall be subject to a final court or other binding order or ruling requiring any payment of a royalty to a Third Party patent holder in respect of future sales of any Product or Additional Product in a country in the Territory, then the amount of Selling Stockholders' Additional Payments under this Section 1.2(a)(vi), with respect to Annual Net Sales for such Product or Additional Product in such country, shall thereafter be reduced (i) for a Patent Product, by [***] of the amount of patent royalties paid by the Purchaser to such Third Party that is reasonably and appropriately allocable to, as applicable, such Patent Product in such country, and (ii) for a Know-how Product or Additional Product, by [***] of the amount of Know-how royalties paid by the Purchaser to such Third Party that is reasonably and appropriately allocable to, as applicable, such Know-how Product or Additional Product in such country. The foregoing reductions shall also apply with respect to all patent and Know-how royalties owed by the Purchaser to Rigel Pharmaceuticals, Inc. pursuant to the License and Collaboration Agreement dated August 27, 2015 between Aclaris Therapeutics International Limited and Rigel Pharmaceuticals, Inc. (the "***Rigel License Agreement***") (but for the avoidance of doubt, such

reductions shall not apply with respect to patent and Know-how royalties owed by the Purchaser to JAKPharm LLC and Key Organics, Ltd pursuant to the Commercial License Agreement dated November 25, 2015 between Aclaris Therapeutics International Limited and JAKPharm LLC and Key Organics, Ltd (the "***JAKPharm and Key Organics License Agreement***")).

**(2)** Subject to the Patent Floor, if during the applicable Additional Purchase Price Term in a country, a Generic Product is launched in such country where a Purchaser is Commercializing a Patent Product for such Generic Product, and the Generic Product obtains at least [***] of the market share with respect to such Patent Product in such country, then Purchaser shall pay to Selling Stockholders on Annual Net Sales of such Product in such country, an Additional Payment equal to [***] of the Additional Payment that would otherwise have been due on such Annual Net Sales under this Section 1.2(a)(vi) (i.e., at [***] of the applicable rate listed in such section as applied to Annual Net Sales of such Patent Product in such country).

**(3)** In the case of a Patent Product, in no event will a deduction, or the aggregate deductions, under Section 1.2(a)(vi)(1) or (2) reduce any Additional Payments made by the Purchaser to the Selling Stockholders in respect of Annual Net Sales of such Patent Product pursuant to Section 1.2(a)(vi) to less than [***] of the Additional Payment otherwise due pursuant to Section 1.2(a)(vi) on such Patent Product in such country in the absence of such deduction or deductions (with respect to a Patent Product, the "**Patent Floor**"). In the case of a Know-how Product or Additional Product, in no event will a deduction under subsection Section 1.2(a)(vi)(1) reduce any Additional Payments made by the Purchaser to the Selling Stockholders in respect of Annual Net Sales of such Know-how Product or Additional Product pursuant to Section 1.2(a)(vi) to less than [***] of the Additional Payment otherwise due pursuant to Section 1.2(a)(vi) on such Know-how Product or Additional Product in such country in the absence of such deduction or deductions (with respect to a Know-how Product, the "***Know-how Floor***", and with respect to an Additional Product, the "***Additional Product Floor***").

**(4)** Solely for the purpose of calculating Net Sales of Combination Products, if Purchaser sells the Product or Additional Product in the form of a Combination Product in a particular country, Net Sales of such Combination Product in such country for the purpose of determining the Additional Payments due to the Selling Stockholder pursuant to Section 1.2(a)(vi) will be calculated by multiplying actual Net Sales of such Combination Product in such country by the fraction A / (A + B), where A is the invoice price of such Product or Additional Product if sold separately in such country, and B is the total invoice price of the other active pharmaceutical ingredient(s) in the combination if sold separately in such country. If, on a country-by-country basis, such other active pharmaceutical ingredient or ingredients in the Combination Product are not sold separately in such country, but the Product or Additional Product component of the Combination Product is sold separately in such country, Net Sales for the purpose of determining the Additional Payments due to the Selling Stockholders for the Combination Product will be calculated by multiplying actual Net Sales of such Combination Product by the fraction A/C, where A is the invoice price of such Product or Additional Product component if sold separately, and C is the invoice price of the Combination Product. If, on a country-by-country basis, such Product or Additional Product component is not sold separately in

such country, Net Sales for the purposes of determining Additional Payments due to Selling Stockholders for the Combination Product will be D/(D+E), where D is the fair market value of the portion of the Combination Product that contains the Product or Additional Product, and E is the fair market value of the portion of the Combination Product containing the other active pharmaceutical ingredient(s) included in such Combination Product, as such fair market values are determined by mutual agreement of the parties, which shall not be unreasonably withheld; and

**(vii)** a percentage of Sublicense Consideration actually received by any Purchaser Person, as follows, on a sublicense-by-sublicense basis ("***Sublicense Payments***" and collectively, with each Anniversary Payment, each Regulatory Milestone Payment, each Commercial Milestone Payment, and all Additional Payments, the "***Back-End Payments***") as follows:

**(1)** [***] of all Sublicense Consideration if the applicable sublicense is executed [***];

**(2)** [***] of all Sublicense Consideration if the applicable sublicense is executed [***];

**(3)** [***] of all Sublicense Consideration if the applicable sublicense is executed [***]; and

**(4)** [***] of all Sublicense Consideration if the applicable sublicense is executed [***].

For the avoidance of doubt, no Purchaser Person shall pay any Sublicense Consideration to the Selling Stockholders for Additional Products.

### 1.3 Closing; Delivery and Payment at Closing

**(a)** Upon and subject to satisfaction of the conditions set forth in Sections 6 and 7 below, the sale of the Shares to the Purchaser shall take place at the closing (the "***Closing***"), which shall take place at 10:30 a.m. EST on the date of this Agreement, or such other date as the Purchaser and the Company may mutually agree (the "***Closing Date***"), with the Closing to take place remotely and electronically, but with deemed effect at the offices of the Purchaser in Malvern, Pennsylvania.

**(b)** At the Closing:

**(i)** the Selling Stockholders shall deliver to the Purchaser the stock certificates representing the Shares, duly endorsed in blank or accompanied by stock powers duly endorsed in blank in proper form for transfer; and

**(ii)** the Purchaser shall (a) pay to the Selling Stockholders, by wire transfer of immediately available funds, cash in an amount equal to the Initial Cash Payment, and

(b) deliver the Purchaser Equity as set forth in Section 1.2(a) above to the Selling Stockholders; and

**(iii)** the parties shall make the other deliveries contemplated by Sections 6 and 7 below.

**1.4 Withholding**. Purchaser will be entitled to deduct and withhold from any consideration payable or otherwise deliverable to any Selling Stockholders pursuant to this Agreement such amounts as Purchaser is required to deduct or withhold therefrom under the Code or under any provision of state, local or foreign tax law; it being understood and agreed that no amounts are required to be deducted with respect to the Initial Cash Payment or the Purchaser Equity. To the extent such amounts are so deducted or withheld, such amounts will be treated for all purposes under this Agreement as having been paid to the Person to whom such amounts would otherwise have been paid.

## SECTION 2. Representations And Warranties Regarding The Company

Except as set forth in the Disclosure Schedule, the Selling Stockholders, severally and not jointly, hereby represent and warrant as set forth in this Section 2, to and for the benefit of the Indemnified Parties, as of the Closing Date (or as of such other date as may be specified in any of the following representations and warranties). The Disclosure Schedule shall be arranged in sections corresponding to the numbered and lettered sections and subsections contained in this Section 2, and the disclosures in any section or subsection of the Disclosure Schedule shall qualify other sections and subsections in this Section 2 only to the extent it is readily apparent from a reading of the disclosure that such disclosure is applicable to such other sections and subsections.

### 2.1 Due Organization; Subsidiaries; Etc.

**(a)** The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and has all necessary corporate power and authority: (i) to conduct its business as it is now being conducted; (ii) to own or use the properties and assets that it purports to own or use; and (iii) to perform all its obligations under the Company Contracts.

**(b)** The Company is duly qualified to do business as a foreign corporation and is in good standing under the laws of each state or other jurisdiction in which either the ownership or use of the properties owned or used by it, or the nature of the activities conducted by it, requires such qualification, except where the failure to so qualify is not reasonably likely to have a Company Material Adverse Change. Part 2.1 of the Disclosure Schedule lists all such states or other jurisdictions in which the Company is duly qualified to do business. Part 2.1 of the Disclosure Schedule accurately sets forth (i) the names of all of the members of the Company's board of directors, and (ii) the names and titles of all of the Company's officers. The Company has no subsidiaries, and the Company has never owned, beneficially or otherwise, any shares or other securities of, or any direct or indirect interest of any nature in, any Entity. The Company has not agreed and is not obligated to make any future investment in (whether in cash, services or otherwise) or capital contribution to any Entity.

**2.2 Certificate of Incorporation and Bylaws; Records.**

**(a)** The Company has delivered to the Purchaser accurate and complete copies of: (i) the Company's certificate of incorporation and bylaws, including all amendments thereto; (ii) the stock records of the Company; and (iii) the minutes and other records of the corporate meetings and other proceedings (including any actions taken by written consent or otherwise without a meeting) of the stockholders of the Company, the board of directors of the Company and all committees of the board of directors of the Company. There have been no corporate meetings or other proceedings of the stockholders of the Company, the board of directors of the Company or any committee of the board of directors of the Company that are not fully reflected in such minutes or other records.

**(b)** There has not been any violation of any of the provisions of the Company's certificate of incorporation or bylaws or of any resolution adopted by the Company's stockholders, the Company's board of directors or any committee of the Company's board of directors; and no event has occurred, and no condition or circumstance exists, that is reasonably likely to (with or without notice or lapse of time) constitute or result directly or indirectly in such a violation. The books of account, stock records, minute books and other corporate records of the Company are accurate, up-to-date and complete in all material respects.

**2.3 Capitalization, Etc**. The authorized capital stock of the Company consists of 10,000,000 shares of Common Stock, of which 2,380,942 shares have been issued and are outstanding and as of the date hereof are owned exclusively by such Selling Stockholders. Part 2.3 of the Disclosure Schedule sets forth a true, correct and complete list of all of the outstanding shares of the Company's capital stock, including the names of the holders thereof. Such Selling Stockholder has, and the Purchaser will acquire at the Closing, good and valid title to such Selling Stockholder's Shares free and clear of any Encumbrances. All of the shares of the Company's issued and outstanding capital stock (i) have been duly authorized and validly issued, (ii) are fully paid and non-assessable, and (iii) have been issued in full compliance with all applicable securities laws and other applicable Legal Requirements. Except as set forth on Part 2.3 of the Disclosure Schedule, there are no outstanding options, warrants, rights, agreements or contracts that could obligate the Company to issue additional shares of the capital stock or any other securities of the Company. None of the outstanding shares of the Company's capital stock is subject to any right of first refusal in favor of the Company or any other Person, and there is no Contract relating to the voting or registration of, or restricting any Person from purchasing, selling, pledging or otherwise disposing of (or granting any option or similar right with respect to), any shares of the Company's capital stock.

**2.4 Authorization; Binding Nature of Agreements**. All stockholder and corporate action necessary to authorize the execution and delivery of this Agreement and all related documents and instruments to be executed and delivered by the Company, and to authorize the performance by it of its obligations hereunder and thereunder, has been duly taken. Each of the Selling Stockholders has the absolute and unrestricted limited liability company right, power and authority to enter into and to perform its obligations under each of the Transactional Agreements to which it is or may become a party. This Agreement constitutes the legal, valid and binding

obligation of the Company and such Selling Stockholder, enforceable against each of the Company and such Selling Stockholder in accordance with its terms, except as limited by applicable bankruptcy, insolvency, reorganization, moratorium or other laws of general application affecting enforcement of creditors' rights. Upon the execution by each Selling Stockholder of each of the other Transactional Agreements to which it is a party at the Closing, each of such other Transactional Agreements will constitute the legal, valid and binding obligation of such Selling Stockholder who is a party thereto, and will be enforceable against such Selling Stockholder in accordance with its terms, except as limited by applicable bankruptcy, insolvency, reorganization, moratorium or other laws of general application affecting enforcement of creditors' rights.

**2.5 Financial Statements**. The Company has delivered to the Purchaser the following financial statements (collectively, the "***Company Financial Statements***"): (i) the unaudited balance sheet of the Company as of December 31, 2014, and the related unaudited income statement of the Company for the year then ended; and (ii) the unaudited balance sheet of the Company (the "***Unaudited Interim Balance Sheet***") as of December 31, 2015 (the "***Statement Date***"), and the related unaudited income statement of the Company for the year then ended. The Company Financial Statements are accurate and complete in all material respects. The financial statements referred to in Section 2.5(i) present fairly the financial position of the Company as of December 31, 2014, and the results of operations of the Company for the year then ended. The financial statements referred to in Section 2.5(ii) present fairly the financial position of the Company as of the Statement Date, and the results of operations of the Company for the year then ended. The Company Financial Statements have been prepared using the cash accounting method, applied on a consistent basis throughout the periods covered.

**2.6 Liabilities**. Except as set forth in Part 2.6 of the Disclosure Schedule, the Company has no Liabilities, except for Liabilities (a) identified as such in the "liabilities" column of the Unaudited Interim Balance Sheet or (b) under or pursuant to Company Contracts. Except as set forth in Part 2.6 of the Disclosure Schedule, the Company has no long-term indebtedness.

**2.7 Absence of Changes**. Except as set forth in Part 2.7 of the Disclosure Schedule, since the incorporation of the Company: (a) there has not been a Material Change to the Company, and, to the Company's Knowledge, no event has occurred that will, or could reasonably be expected to, result in a Material Change to the Company; (b) the Company has not made any Tax election, adopted or changed any accounting method in respect of Taxes, amended any Tax Return, entered into any closing agreement, settled any material claim or assessment in respect of Taxes, or consented to any extension or waiver of the limitation period applicable to any claim or assessment in respect of Taxes; (c) the Company has not commenced or settled any Proceeding; (d) the Company has not entered into any material transaction or taken any other material action outside the ordinary course of business or inconsistent with its past practices; and (e) the Company has not agreed or committed to take any of the actions referred to in clauses "(a)" through "(d)" above.

**2.8 Assets**.

**(a)** The Company owns, and has good, valid and marketable title to all assets which it purports to own, except for such imperfections of title which are not material in character,

amount or extent, and which do not materially detract from the value, or materially interfere with the present use, of the assets subject thereto or affected thereby. Part 2.8(a) of the Disclosure Schedule identifies (i) all assets having a book value equal to $500 or more that are owned by the Company, and (ii) all assets that are being leased or licensed to the Company. Except as set forth in Part 2.8(a) of the Disclosure Schedule, all of such assets are owned by the Company and are free and clear of any liens or other Encumbrances, except for (x) any lien for current Taxes not yet due and payable and (y) minor liens that have arisen in the ordinary course of business and that do not (in any individual case or in the aggregate) materially detract from the value of the assets subject thereto or materially impair the operations of the Company.

**(b)** As of the Closing Date, the Company will not be party to any credit banking facility with any Person, and no amounts will be owed by the Company or the Selling Stockholders with respect to any credit banking facilities to which the Company was a party prior to the Closing Date.

**2.9 Real Property**. The Company does not own or lease any real property or any interest in real property.

**2.10 Intellectual Property.**

**(a)** Part 2.10(a)(i) of the Disclosure Schedule identifies any material Proprietary Asset owned by the Company (the "***Owned Proprietary Assets***"). Part 2.10(a)(ii) of the Disclosure Schedule identifies any material Proprietary Asset that is owned by any other Person and that is licensed to or used by the Company (except for any material Proprietary Asset that is licensed to the Company under any third-party software license that (i) is generally available to the public, and (ii) imposes no future monetary obligation on the Company) and identifies the license agreement or other agreement under which such Proprietary Asset is being licensed to or used by the Company (the "***Licensed Proprietary Assets***" and, together with the Owned Proprietary Assets, the "***Company Proprietary Assets***"). The Company has good and valid title to all of the Owned Proprietary Assets, free of any Encumbrances, and has a valid right to use and otherwise exploit, and to license others to use and otherwise exploit, all Licensed Proprietary Assets in accordance with the terms of the License Agreement.

**(b)** Except as set forth in Part 2.10(b)(i) of the Disclosure Schedule, the Company is not obligated to make any payment to any Person for the use or other exploitation of any Company Proprietary Asset. Subject to the reservations, governmental rights and other terms and conditions set forth in the License Agreement, the license grant by Institution to Company is exclusive with respect to the Licensed Proprietary Assets constituting Company Patent Rights and non-exclusive with respect to the Licensed Proprietary Assets constituting Company Know-how. To the Company's Knowledge, all inventors of the pending patent application within the Licensed Proprietary Assets have assigned all of their rights, title and interest therein to Institution. The Company has not received any notice from a Third Party that the Licensed Proprietary Assets constituting issued Company Patent Rights are not valid and enforceable. Except as set forth in Part 2.10(b)(iii) of the Disclosure Schedule, no action, suit, proceeding, hearing, investigation, charge, complaint, claim or demand is pending against the Company or any of the Seller Principals (or to the Company's Knowledge, against any other Person) or to the Company's Knowledge,

threatened, which challenges the legality, validity, enforceability, use, or ownership of any Company Proprietary Asset.

**(c)** To the Company's Knowledge, the Company has never infringed (directly, contributorily, by inducement, or otherwise), misappropriated, or otherwise violated or made unlawful use of any Proprietary Assets of any other Person.

**(d)** No infringement, misappropriation, or similar claim or Proceeding is pending or, to the Company's Knowledge, threatened against the Company or, to the Company's Knowledge, pending or threatened against any other Person who is or may be entitled to be indemnified, defended, held harmless, or reimbursed by the Company with respect to such claim or Proceeding. The Company has never received any notice or other communication (in writing or otherwise) relating to any actual, alleged, or suspected infringement, misappropriation, or violation by the Company, any of their employees or agents, of any Proprietary Assets of another Person.

**(e)** Except as set forth in Part 2.10(e) of the Disclosure Schedule, the Company is not bound by any Contract to indemnify, defend, hold harmless or reimburse any other Person with respect to, or otherwise assumed or agreed to discharge or otherwise take responsibility for, any existing or potential intellectual property infringement, misappropriation or similar claim (other than indemnification provisions in the Company's standard forms of Company Contracts).

**(f)** No claim or Proceeding against the Company or Selling Principals (or to the Company's Knowledge, any other Person) involving any Company Proprietary Assets is pending or, to the Company's Knowledge, has been threatened, except for any such claim or Proceeding that, if adversely determined, would not adversely affect (i) the use or exploitation of such Company Proprietary Assets by the Company, or (ii) the development, manufacturing, marketing, distribution, provision, licensing or sale of any Company Proprietary Assets or products deriving therefrom.

**(g)** The Company has taken all reasonable actions common in the industry to maintain and protect the Company Proprietary Assets, including the secrecy, confidentiality and value of trade secrets and other confidential information. Except as set forth on Part 2.10(g) of the Disclosure Schedule, the Company has executed valid written agreements with all of its past and present employees, consultants, independent contractors, founders, officers and directors who have been privy to any trade secrets or confidential information of any of the Company pursuant to which such Persons have agreed to hold all trade secrets and confidential information of the Company in confidence both during and after their employment or retention with the Company, as applicable and there has been no breach or default or threatened breach or default of any such agreement. Except as set forth on Part 2.10(g) of the Disclosure Schedule, the Company has executed valid written agreements with all of its past and present founders, officers, directors, employees, consultants and independent contractors who have contributed to the development of any Company Proprietary Assets pursuant to which such Persons have presently assigned to the Company all their rights in and to all Proprietary Assets developed in the course of their employment or retention, as applicable and there has been no breach or default or threatened breach or default of any such agreement. Except as set forth on Part 2.10(g) of the Disclosure Schedule, no trade secret or other confidential information owned by the Company that is material to its

business as currently conducted has been disclosed or authorized to be disclosed by the Company to any of its founders, officers, directors, employees or consultants, contractors or other third parties other than pursuant to a valid written nondisclosure or confidentiality agreement. No founder, officer, director, employee, consultant or independent contractor of the Company is in default or breach of any non-disclosure or confidentiality agreement, covenant or obligation.

**(h)** All of the Selling Principals have complied with all applicable policies and guidelines of Institution and the Selling Principals' respective employers to the extent relating to any of the Company, the License Agreement, the Transactional Agreements or the Transactions. This Section 2.10(h) and the second sentence of Section 2.20 are the sole representations and warranties made with respect to the subject matter covered by these representations and warranties; and no other representation or warranty shall be interpreted or construed to cover such same subject matter.

**(i)** The Company has made available to the Purchaser complete and accurate copies of all patents, trademark registrations and copyright registrations or applications related to Company Patent Rights therefor, and any material correspondence and other material documents related thereto.

**(j)** Except as set forth in Part 2.10(j) of the Disclosure Schedule, no funding, facilities or personnel of any governmental authority or any university or other education institution were used to develop or create, in whole or in part, any Company Proprietary Assets.

**2.11 Contracts**.

**(a)** Part 2.11(a) of the Disclosure Schedule identifies each Company Contract and, with respect to oral Company Contracts, provides an accurate summary of all material terms thereof. The Company has delivered to the Purchaser accurate and complete copies of all Company Contracts identified in Part 2.11 of the Disclosure Schedule, including all amendments thereto.

**(b)** Except as set forth in Part 2.11(b) of the Disclosure Schedule, (i) none of the Company Persons has and, to the Company's Knowledge, no other Person has, violated or breached, or declared or committed any default under, any Company Contract; (ii) no event has occurred, and no circumstance or condition exists, that is reasonably likely to (with or without notice or lapse of time) (A) result in a violation or breach by the Company of any of the provisions of any Company Contract, (B) give any Person the right to declare a default or exercise any remedy under any Company Contract, (C) give any Person the right to accelerate the maturity or performance of any Company Contract, or (D) give any Person the right to cancel, terminate or modify any Company Contract; (iii) neither the Company nor such Selling Stockholder has received any written notice regarding any actual, alleged, possible or potential violation or breach of, or default under, any Company Contract; (iv) the Company has not waived any of its material rights under any Company Contract; and (v) the Company has never been a party to or bound by (A) any joint venture agreement, partnership agreement, profit-sharing agreement, cost-sharing agreement, loss-sharing agreement or similar Contract, (B) any Contract that creates or grants to any Person, or provides for the creation or grant of, any stock appreciation right, phantom stock right or similar right or interest or (C) any Contract pursuant to which the Company has granted

or received manufacturing rights, most favored nations pricing provisions or exclusive marketing or other rights of a similar nature relating to any product, group of products, services, technology, assets or territory. The performance of the Company Contracts in accordance with their respective terms will not result in any violation of or failure by the Company in any material respect to comply with any Legal Requirement.

**(c)** Part 2.11(c) of the Disclosure Schedule identifies and provides an accurate and complete description of each written proposed Contract (that has not resulted in a Company Contract) as to which any bid, offer, written proposal, term sheet or similar document has been submitted or received by the Company. Each Company Contract is valid and in full force and effect, and is enforceable by the Company in accordance with its terms, except as limited by applicable bankruptcy, insolvency, reorganization, moratorium or other laws of general application affecting enforcement of creditors' rights. No Person is renegotiating any amount paid or payable to the Company under any Company Contract or any other term or provision of any Company Contract. Except as provided in the License Agreement, the Company is not bound by, and no material Company Proprietary Asset is subject to, any Contract containing any covenant or other provision that in any way limits or restricts the ability of the Company to use, exploit, assert, or enforce any Company Proprietary Asset anywhere in the world.

**2.12 Compliance with Legal Requirements**. Except as provided in Part 2.12 of the Disclosure Schedule, the Company has complied, in all material respects, with each Legal Requirement that is applicable to it or to the conduct of its business or the ownership or use of any of its assets; no event has occurred, and no condition or circumstance exists, that is reasonably likely to (with or without notice or lapse of time) constitute or result directly or indirectly in a material violation by the Company of, or a failure on the part of the Company to comply with, any Legal Requirement; and the Company has not received, at any time, any written notice from any Governmental Body or any other Person regarding (a) any actual, alleged, possible or potential violation by the Company of, or failure to comply with, any Legal Requirement in all material respects, or (b) any actual, alleged, possible or potential obligation on the part of the Company to undertake, or to bear all or any portion of the cost of, any cleanup or any remedial, corrective or response action of any nature.

**2.13 Governmental Authorizations**. Part 2.13 of the Disclosure Schedule identifies each Governmental Authorization that is held by the Company. The Company has delivered to the Purchaser accurate and complete copies of all of the Governmental Authorizations identified in Part 2.13 of the Disclosure Schedule, including all renewals thereof and all amendments thereto. Each Governmental Authorization identified or required to be identified in Part 2.13 of the Disclosure Schedule is valid and in full force and effect. The Governmental Authorizations identified in Part 2.13 of the Disclosure Schedule constitute all of the Governmental Authorizations necessary (i) to enable the Company to conduct its business in the manner in which its business is currently being conducted, and (ii) to permit the Company to own and use its assets in the manner in which they are currently owned and used.

**2.14 Tax Matters**.

**(a)** The Company was incorporated on October 13, 2014, has total revenues since inception of [***]. Except as set forth on Part 2.14(a) of the Disclosure Schedule, all Tax Returns required to be filed on or before the Closing Date by the Company have been, or will be, timely filed. All Taxes due and owing by the Company (whether or not shown on any Tax Return) prior to the Closing Date have been paid. The Company is not currently the beneficiary of any extension of time within which to file any Tax Return. No claim has ever been made by an authority in a jurisdiction where the Company does not file Tax Returns that it is or may be subject to taxation by that jurisdiction. There are no Encumbrances for Taxes (other than Taxes not yet due and payable) upon any of the assets of the Company.

**(b)** The Company has withheld and paid all Taxes required to have been withheld and paid in connection with any amounts paid or owing to any employee, independent contractor, creditor, stockholder, or other third party.

**(c)** No Proceedings related to Taxes are pending or being conducted with respect to the Company. The Company has not received from any Governmental Body any (i) notice indicating an intent to open an audit or other review, (ii) request for information related to Tax matters, or (iii) notice of deficiency or proposed adjustment of or any amount of Tax proposed, asserted, or assessed by any Governmental Body against the Company.

**(d)** The Company has not waived any statute of limitations in respect of Taxes or agreed to any extension of time with respect to a Tax assessment or deficiency.

**(e)** The Company is not a party to any Contract that has resulted or, to the Company's Knowledge, would reasonably be expected to result, separately or in the aggregate, in the payment of any "excess parachute payment" within the meaning of section 280G of the Code (or any corresponding provisions of state, local or foreign Tax law). The Company has not been a United States real property holding corporation within the meaning of section 897(c)(2) of the Code during the applicable period specified in section 897(c)(1)(A)(ii) of the Code. The Company is not a party to or bound by any Tax allocation or sharing agreement. The Company (A) has not been a member of an Affiliated Group (as defined by the Code) filing a consolidated federal income Tax Return (other than a group the common parent of which was the Company) or (B) does not have any Liability for the Taxes of any Person (other than the Company) under regulation 1.1502-6 of the Code (or any similar provision of state, local, or foreign law), as a transferee or successor, by contract, or otherwise.

**(f)** The Unaudited Interim Balance Sheet has been prepared on a cash basis and does not include any reserves for Taxes. Since the date of the Unaudited Interim Balance Sheet, the Company has not incurred any liability for Taxes arising from extraordinary gains or losses, determined in accordance with GAAP, outside the ordinary course of business.

**(g)** The Company will not be required to include any item of income in, or exclude any item of deduction from, taxable income for any taxable period (or portion there) ending after the Closing Date as a result of any: (i) change in method of accounting for taxable period ending on or prior to the Closing Date; (ii) "closing agreement" as described in section 7121 of the Code (or any corresponding or similar provision of state, local or foreign income Tax law)

executed on or prior to the Closing Date; (iii) intercompany transactions or any excess loss account described in United States Treasury Regulations under section 1502 of the Code (or any corresponding or similar provisions of state, local or foreign income Tax law); (iv) installment sale or open transaction disposition made on or prior to the Closing Date; or (v) prepaid amount received on or prior to the Closing Date.

**(h)** The Company has not distributed stock of another Person, or has had its stock distributed by another Person, in a transaction that was purported or intended to be governed in whole or in part by section 355 or section 361 of the Code.

**(i)** The Company is not a party to any joint venture, partnership, other arrangement or contract which could be treated as a partnership for federal income Tax purposes.

**(j)** The Company has not (i) taken a reporting position on a Tax Return that, if not sustained, would be reasonably likely to give rise to a penalty for substantial understatement of federal income Tax under Section 6662 of the Code (or any similar provision of state, local or foreign law), or (ii) participated in a reportable transaction within the meaning of Section 1.6011-4(b) of the Treasury Regulations.

**2.15 Employee and Labor Matters**.

**(a)** The Company does not have, and has never had, any employees or independent contractors.

**(b)** The Company is not a party to or bound by, and the Company has not ever been a party to or bound by, any employment agreement or any union contract, collective bargaining agreement or similar Contract.

**2.16 Benefit Plans**. The Company does not have, and has never had, any Benefit Plans.

**2.17 Insurance**. The Company does not maintain, and has never maintained, any insurance policies.

**2.18 Related Party Transactions**. Except as set forth in Part 2.18 of the Disclosure Schedule: (a) no Related Party has, and no Related Party has at any time since the inception of the Company had, any direct or indirect interest of any nature in any asset used in or otherwise relating to the business of the Company; (b) no Related Party is, or has at any time since the inception of the Company been, indebted to the Company; (c) since the inception of the Company, no Related Party has entered into, or has had any direct or indirect financial interest in, any Contract, transaction or business dealing of any nature involving the Company (other than ordinary course business dealings between the Company and its employees for expense reimbursements and matters relating to the issuance of shares to the Selling Stockholders by the Company); (d) no Related Party is competing, or has at any time since the inception of the Company competed, directly or indirectly, with the Company in any market served by the Company; (e) to the Company's Knowledge, no Related Party has any claim or right against the Company; and (f) to the Company's Knowledge, no event has occurred, and no condition or circumstance exists, that

is reasonably likely to (with or without notice or lapse of time) directly or indirectly give rise to or serve as a basis for any claim or right in favor of any Related Party against the Company.

**2.19 Proceedings; Orders**.

**(a)** There is no Proceeding pending against any of the Company Persons, and, to the Company's Knowledge, no Person has threatened to commence any Proceeding: (i) that involves the Company Persons or that otherwise relates to or is reasonably likely to affect the Company's business or any of the assets owned or used by the Company (whether or not the Company is named as a party thereto); or (ii) that challenges, or that may have the effect of preventing, delaying, making illegal or otherwise interfering with, the Transaction. No event has occurred, and no claim, dispute or other condition or circumstance exists, that is reasonably likely to directly or indirectly give rise to or serve as a basis for the commencement of any such Proceeding.

**(b)** There is no Order to which the Company, or any of the assets owned or used by the Company, is subject. None of the Selling Stockholders is subject to any Order that relates to the Company's business or to any of the assets owned or used by the Company.

**(c)** To the Company's Knowledge, no officer or employee of the Company is subject to any Order that prohibits such officer or employee from engaging in or continuing any conduct, activity or practice relating to the Company's business.

**2.20 Non-Contravention; Consents**. Neither the execution and delivery by any of the Company Persons of any of the Transactional Agreements, nor the consummation or performance by any of the Company Persons of any of the Transactions, will directly or indirectly (with or without notice or lapse of time) constitute a Contravention Event. Except as set forth in Part 2.20 of the Disclosure Schedule, the Company Persons were not, are not and will not be required to make any filing with or give any notice to, or to obtain any Consent from, any Person in connection with the execution and delivery of any of the Transactional Agreements or the consummation or performance of any of the Transactions.

**2.21 Brokers**. None of the Company Persons has agreed or become obligated to pay, or has taken any action that might result in any Person claiming to be entitled to receive, any brokerage commission, finder's fee or similar commission or fee in connection with any of the Transactions.

**2.22 Full Disclosure**. None of the Transactional Agreements contains or will contain any untrue statement of material fact; and none of the Transactional Agreements omits or will omit to state any material fact necessary to make any of the representations, warranties or other statements or information contained therein not misleading. Except as set forth in Part 2.22 of the Disclosure Schedule, there is no material fact within the Knowledge of the Company Persons (other than general economic or industry conditions) that (a) is reasonably likely to have a material adverse effect on the Company's business, condition, assets, liabilities, operations, financial performance, or net income (or on any aspect or portion thereof) or on the ability of the Company Persons to comply with or perform any covenant or obligation under any of the Transactional

Agreements, or (b) is reasonably likely to have the effect of preventing, delaying, making illegal or otherwise interfering with the Transaction.

**2.23 Disclaimer**. EXCEPT AS EXPRESSLY SET FORTH HEREIN (OR IN ANY OF THE OTHER TRANSACTIONAL AGREEMENTS), THE SELLING STOCKHOLDERS ARE NOT MAKING ANY REPRESENTATION OR WARRANTY WHATSOEVER REGARDING THE SUBJECT MATTER OF THIS AGREEMENT OR THE TRANSACTIONS, EXPRESS OR IMPLIED. ADDITIONALLY, THE SELLING STOCKHOLDERS MAKE THE DISCLAIMERS SET FORTH ON PART 2.23 OF THE DISCLOSURE SCHEDULE.

**2.24 Investment Representations**. Each Selling Stockholder and each Seller Principal: (a) is an accredited investor as defined in Rule 501(a) of Regulation D promulgated under the Securities Act with principal investment decisions regarding such Selling Stockholder being made in the State of New York or New Jersey; (b) has had access to all information regarding the Purchaser and its present and prospective business, assets, liabilities and financial condition, including an opportunity to review the Purchaser's public filings, that such Selling Stockholder or Seller Principal reasonably considers important in making the decision to acquire the Purchaser Equity in the Transaction and has consulted with legal counsel, tax advisors and other advisors it deems appropriate in electing to enter into this Agreement and negotiate the terms and conditions hereof; and (c) is acquiring the Purchaser Equity solely for such Selling Stockholder's or Seller Principal's own account for investment only, and not with a view towards its distribution or sale. Each Selling Stockholder and each Seller Principal is fully aware of: (v) the financial hazards involved in acquiring the Purchaser Equity; (w) the lack of liquidity of the Purchaser Equity and the restrictions on transferability of the Purchaser Equity; (x) the highly speculative nature of the Purchaser Equity; (y) the qualifications and backgrounds of the senior management of the Purchaser listed in the Purchaser SEC Documents; and (z) the tax consequences of acquiring the Purchaser Equity.

**SECTION 3. Representations and Warranties of the Purchaser**

The Purchaser hereby represents and warrants, to and for the benefit of the Selling Stockholders, as follows:

**3.1 Authorization**. All stockholder and corporate action necessary to authorize the execution and delivery by the Purchaser of this Agreement and the other documents and instruments to be delivered by the Purchaser hereunder, and to authorize the performance by the Purchaser of its obligations hereunder and thereunder, has been duly taken.

**3.2 Authority; Binding Nature of Agreement**. The Purchaser has the absolute and unrestricted right, power and authority to enter into and perform its obligations under this Agreement, the execution, delivery and performance of each of this Agreement and the other Transactional Agreements by the Purchaser has been duly authorized by all necessary action on the part of the Purchaser and its board of directors, and, if applicable, stockholders. Each of this Agreement and the other Transactional Agreements constitutes the legal, valid and binding obligation of the Purchaser enforceable against the Purchaser in accordance with its respective

terms, except as limited by applicable bankruptcy, insolvency, reorganization, moratorium or other laws of general application affecting enforcement of creditors' rights.

**3.3 Authorization of Common Stock**. The Purchaser Equity is duly authorized for issuance and sale pursuant to this Agreement and, when issued and delivered by the Purchaser pursuant to this Agreement, will be validly issued and fully paid and non-assessable; and the issuance of the Purchaser Equity is not subject to statutory or contractual preemptive rights, resale rights, rights of first refusal or restrictions upon voting and transfer (except for applicable transfer restrictions under the Securities Act and any applicable state securities laws) of any securityholder of the Purchaser. No holder of shares of common stock of the Purchaser will be subject to personal liability pursuant to the Delaware General Corporation Law by reason of being such a holder.

**3.4 SEC Documents; Undisclosed Liabilities**.

**(a)** The Purchaser has filed or furnished all reports, schedules, forms, statements, registration statements, prospectuses and other documents required to be filed or furnished by the Purchaser with the SEC under the Securities Act and the Exchange Act since October 6, 2015 (the "***Purchaser SEC Documents***").

**(b)** As of its respective filing date, and, if amended, as of the date of the last amendment prior to the date of this Agreement, each Purchaser SEC Document complied in all material respects with the requirements of the Exchange Act or the Securities Act, as the case may be, and the rules and regulations of the SEC promulgated thereunder applicable to such Purchaser SEC Document and did not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading.

**(c)** To the extent applicable to the Purchaser, the Purchaser is in compliance in all material respects with (i) the applicable provisions of the Sarbanes-Oxley Act and (ii) the applicable listing and corporate governance rules and regulations of the NASDAQ Global Select Market.

**(d)** The Purchaser and its subsidiaries do not have any Liabilities except (i) as disclosed, reflected or reserved against in the most recent unaudited condensed consolidated balance sheet included in the Purchaser financial statements or the notes thereto in the Purchaser SEC Documents, and (ii) for liabilities and obligations incurred in the ordinary course of business since the date of the most recent unaudited condensed consolidated balance sheet included in the Purchaser SEC Documents.

**(e)** Since November 18, 2015, no event has occurred that would reasonably be expected to have the effect of materially delaying or preventing the consummation of the transactions contemplated by this Agreement. Since March 17, 2016, no event has occurred that would reasonably be expected to have a material adverse effect on Purchaser, any of its Affiliates, or any of Purchaser's or any of its Affiliates' business, condition, liabilities, operators, financial performance, net income or prospects (or in any aspect or portion thereof).

**3.5 Brokers**. The Purchaser has not agreed or become obligated to pay, and has not taken any action that might result in any Person claiming to be entitled to receive, any brokerage commission, finder's fee or similar commission or fee in connection with any of the Transactions.

**SECTION 4. Certain Covenants and Agreements**.

**4.1 Diligence**.

**(a)** The Purchaser shall use its Commercially Reasonable Efforts to Develop and Commercialize at least one AA Product, Know-how Product or Additional Product for the treatment of alopecia areata in humans for commercial sale and distribution throughout the United States and such other areas of the world as the Purchaser determines to be commercially prudent, and to such end, such efforts will include, without limitation, the following:

**(i)** Enrollment of first patient in a Phase I Clinical Trial with respect to an AA Product, Know-how Product or Additional Product for the treatment of alopecia areata in humans within [***] of the Closing Date; and

**(ii)** Enrollment of the first patient in a Phase II Clinical Trial with respect to an AA Product, Know-how Product or Additional Product for the treatment of alopecia areata in humans within [***] of the Closing Date; and

**(iii)** Enrollment of the first patient in a Phase III Clinical Trial with respect to an AA Product, Know-how Product or Additional Product for the treatment of alopecia areata in humans within [***] of the Closing Date; and

**(iv)** First Commercial Sale of an AA Product, Know-how Product or Additional Product for the treatment of alopecia areata in humans within [***] of the Closing Date.

**(b)** The Purchaser shall use Commercially Reasonable Efforts to Develop and Commercialize at least one AGA Product, Know-how Product or Additional Product for the treatment of androgenetic alopecia in humans for commercial sale and distribution throughout the United States and such other areas of the world as the Purchaser determines to be commercially prudent, and to such end, such efforts will include, without limitation, the following:

**(i)** Enrollment of the first patient in a Phase I Clinical Trial with respect to an AGA Product, Know-how Product or Additional Product for the treatment of androgenetic alopecia in humans within [***] of the Closing Date; and

**(ii)** Enrollment of the first patient in a Phase II Clinical Trial with respect to an AGA Product, Know-how Product or Additional Product for the treatment of androgenetic alopecia in humans within [***] of the Closing Date; and

**(iii)** Enrollment of the first patient in a Phase III Clinical Trial with respect to an AGA Product, Know-how Product or Additional Product for the treatment of androgenetic alopecia in humans within [***] of the Closing Date; and

**(iv)** First Commercial Sale of an AGA Product, Know-how Product or Additional Product for the treatment of androgenetic alopecia in humans within [***] of the Closing Date.

**(c)** On every anniversary of the Closing, the Company and the Purchaser shall report in detailed writing to the Stockholders' Representative and the Selling Stockholders the progress made toward the diligence obligations set forth in this Section 4.1. The Purchaser shall not be deemed in breach of this Section 4.1(c) unless it fails to provide such report to the Selling Stockholders within thirty (30) days after receipt by the Purchaser of a written notice from the Stockholders' Representative notifying the Purchaser of such breach.

**4.2 Payment; Reports**.

**(a)** Each payment due under Section 1.2(a)(vi) shall be due within thirty (30) calendar days after March 31, June 30, September 30 and December 31 of each year, covering the Net Sales during the preceding calendar quarter. Each payment due under Section 1.2(a)(vii) shall be due within thirty (30) days after March 31, June 30, September 30 and December 31 of each year, covering Sublicense Consideration received during the preceding calendar quarter. Each payment due under Section 1.2(a)(iv) and (v) shall be due within thirty (30) calendar days of the applicable Regulatory Milestone or Commercial Milestone. Each payment due under Section 4.9 shall be due within thirty (30) calendar days of receipt by the Purchaser of the applicable Remaining Amounts.

**(b)** Each payment due under Sections 1.2(a)(vi) and (vii) shall be accompanied by a report of (i) in the case of Section 1.2(a)(vi), Net Sales in sufficient detail to permit confirmation of the accuracy of the payment made, including, on a Product-by-Product or Additional Product-by-Additional Product and country-by-country basis, and the exchange rates used, (ii) in the case of Section 1.2(a)(vii), an itemization of all Sublicense Consideration and all exclusions therefrom, and (iii) in the case of Section 4.9, an itemization of the calculation of the Selling Stockholder Third Party Recovery Share. The Purchaser Persons shall keep complete and accurate records pertaining to the sale of Products and Additional Products or other disposition of Products and Additional Products and payment received as Sublicense Consideration and Remaining Amounts in sufficient detail to permit the Selling Stockholders to confirm the accuracy of all payments due hereunder.

**4.3 Exchange Rate; Manner and Place of Payment**. All payments to the Selling Stockholders hereunder shall be payable in United States dollars. When conversion of payments from any foreign currency is required, such conversion shall be at an exchange rate equal to the weighted average of the rates of exchange for the currency of the country from which the payments are payable as published by The Wall Street Journal, Western U.S. Edition, for the calendar quarter in which such sales were made. All payments owed to the Selling Stockholders under this Agreement shall be made by wire transfer in immediately available funds to a bank and account designated in writing by the Selling Stockholders, unless otherwise specified in writing by the Selling Stockholders.

**4.4 Audits**. During the Additional Purchase Price Term, and for a period of three (3) years thereafter, the Purchaser Persons shall keep complete and accurate records pertaining to the sale of Products and Additional Products or other disposition of Products and Additional Products in sufficient detail to permit the Selling Stockholders or their designee to confirm the accuracy of all payments due hereunder. The Stockholders' Representative shall have the right to cause an independent, certified public accountant to audit such records to confirm Net Sales and other payments due hereunder. Such audits may be exercised during normal business hours upon a prior written notice to the Purchaser. Prompt adjustments shall be made by the parties to reflect the results of such audit. The Selling Stockholders shall bear the full cost of such audit unless such audit discloses an underpayment by the Purchaser of more than [***] of the amount of payments due in the applicable period as provided in this Agreement, in which case the Purchaser shall bear all costs of such audit and shall promptly remit to the Selling Stockholders the amount of any underpayment.

**4.5 Certain Provisions Regarding License Agreement**. In the event of any default or breach by the Company or its assignee under the License Agreement that is reasonably likely to adversely affect the Selling Stockholders' rights under this Agreement, the Purchaser shall promptly notify the Stockholders' Representative thereof. In the event of any such default or breach under the License Agreement, then if the Purchaser should fail to do so upon not less than twenty (20) calendar days' advance notice and opportunity to cure, the Selling Stockholders shall have the right, but not the obligation, to take such actions as reasonably necessary or appropriate to cure such default or breach; and the Company shall promptly reimburse the Selling Stockholders' reasonable out-of-pocket expenses in connection therewith. The Purchaser shall promptly provide to the Stockholders' Representative a copy of any notice received by the Company or its assignee from Institution pursuant to the License Agreement. The Company or its assignee shall not amend, modify or supplement the License Agreement with respect to any term that would otherwise adversely affect the rights and/or obligations of the Company or its assignee under this License Agreement in such a way that would materially and adversely affect the Selling Stockholders' rights to receive any Back-End Payments or Selling Stockholder Third Party Recovery Share pursuant to this Agreement without the prior written consent of the Stockholders' Representative; provided, however, that the Purchaser may amend, modify or supplement the License Agreement without the prior written consent of the Stockholders' Representative with respect to any applicable term if Institution initiates a legal action against or delivers a written claim or demand to any Purchaser Person related to the Transaction, and in connection therewith the Selling Stockholders will enter into good faith negotiations with the Purchaser to amend the terms of the Back-End Payments, as appropriate.

**4.6 Importance of Company Know-how**. The Purchaser acknowledges and agrees that it desires access to the Company Know-how licensed by Institution to Company pursuant to the License Agreement in order to Develop and Commercialize Products. Because of the importance of such licensed Company Know-how, the Purchaser has agreed to pay Additional Payments to the Selling Stockholders on the Know-how Products, in order to obtain rights to such Company Know-how. The Purchaser has agreed to these payments because of the commercial value of such Company Know-how, separate and distinct from the commercial value of the Company Patents Rights. The Purchaser further acknowledges that rights to such Company Know-

how and each patent and patent and application within the definition of Company Patent Rights were separately available to the Purchaser, and that for convenience, the parties executed a combined agreement with respect to an acquisition of the entire Company. The Purchaser acknowledges such Company Know-How is necessary for the Development and Commercialization of Products and, as such, Products will necessarily incorporate in whole or in part, such Company Know-how.

**4.7 Reversions**. In the event that the Purchaser materially breaches any of its material obligations under Section 4.1(a) or (b) of this Agreement (including, without limitation, failure to achieve any particular diligence milestone event) and does not cure such breach within one hundred twenty (120) calendar days from the date of written notification of such breach by the Stockholders' Representative to the Purchaser, then, upon the written request of the Stockholders' Representative, the Purchaser shall be obligated to transfer and assign to a Person designated by the Stockholders' Representative (upon the expiration of the 120 day cure period), and (subject to the other provisions hereof) shall automatically be deemed to have transferred and assigned to the Selling Stockholders (or such designated Person), the rights under the License Agreement (subject to Institution's consent to such transfer and assignment, if required, which the Purchaser shall use commercially reasonably efforts to obtain) which relate to the specific Patent Product or Know-how Product for which Purchaser breached its material obligations under Section 4.1(a) or (b), without any payment or obligation on the part of the Selling Stockholders (or such designated Person) (any such event, a "***Reversion***"); *provided*, that any dispute, controversy or claim arising out of, relating to, or in connection with, any attempted or actual cure by the Purchaser pursuant to this Section 4.7 shall be finally settled by expedited arbitration proceedings; and *provided, further*, that any Reversion will be tolled pending the resolution of any such expedited arbitration proceedings. Upon the request of the Stockholders' Representative, at a date following the effective date of any Reversion (which date shall be the date of the written request of the Stockholders' Representative or such other date as mutually agreed to by the parties in writing), (x) the Purchaser and its Affiliates, on the one hand, and (y) the Selling Stockholders (or such designated Person), on the other hand, shall enter into an agreement pursuant to which (i) the Selling Stockholders (or such designated Person) shall be granted a non-exclusive right to reference and use any Know-how, data, and regulatory filings related to such Patent Product or Know-how Product and the Company Patent Rights which are then solely owned by the Purchaser and/or its Affiliates, and (ii) the Purchaser and its Affiliates shall non-exclusively license to the Selling Stockholders (or such designated Person) any improvements and modifications to the Company Patent Rights which are then solely owned by the Purchaser and/or its Affiliates, all for financial compensation and on other terms to be agreed in good faith between the Purchaser and the Selling Stockholders. In the event that the parties cannot agree to the financial and other terms for such reference and use rights and non-exclusive license to improvements and modifications to the Company Patent Rights within ninety (90) days of the effective date of any Reversion (and the parties do not mutually agree in writing to extend such time period), the dispute shall be resolved by expedited arbitration proceedings. The Purchaser and its Affiliates shall not be required to transfer, assign, license or sublicense to the Selling Stockholders (or any Person designated by the Selling Stockholders) in connection with any Reversion, any intellectual property (including, but not limited to, all Patent Rights, Know-how, Compounds, products, data, regulatory filings, approvals, improvements and modifications) that is (a) related to any Additional Product, (b) not

solely owned by the Purchaser and/or its Affiliate and related to the Company Patent Rights, (c) jointly owned by the Purchaser and any Third Party, or (d) not related to the relevant Patent Product or Know-how Product and/or the Company Patent Rights. For the avoidance of doubt, (A) the Reversion pursuant to this Section 4.7 is on a Patent Product-by-Patent Product or Know-how Product-by- Know-how Product basis and the Purchaser and its Affiliates may continue to Develop and Commercialize any and all other Products covered by the Company Know-how and Company Patent Rights which have not reverted to Selling Stockholders (or such designated Person) pursuant to this Section 4.7, and (B) shall not apply with respect to any Additional Product or any intellectual property related to any Additional Product. **NOTWITHSTANDING ANYTHING TO THE CONTRARY IN THIS AGREEMENT OR OTHERWISE, AS A MATERIAL CONDITION PRECEDENT TO THIS AGREEMENT AND THE PURCHASER'S WILLINGNESS TO ENGAGE IN AND CONSUMMATE THE TRANSACTION, THE SELLING STOCKHOLDERS IRREVOCABLY AGREE AND CONFIRM THAT (X) THE REVERSION REMEDY CONTAINED IN THIS SECTION 4.7 IS AND WILL BE THE SOLE, EXCLUSIVE AND ONLY REMEDY OF THE SELLING STOCKHOLDERS FOR ANY BREACH OR VIOLATION BY THE PURCHASER OF ANY OF ITS MATERIAL OBLIGATIONS UNDER SECTION 4.1(A) OR (B) OF THIS AGREEMENT; AND (Y) NO REMEDIES WILL BE AVAILABLE TO THE SELLING STOCKHOLDERS IN CONNECTION WITH BREACHES OF SECTION 4.1(A) OR (B) NOT COVERED BY THIS SECTION 4.7.**

**4.8 Rule 144 Compliance**. With a view to making available to the Selling Stockholders the benefits of Rule 144 and any other rule or regulation of the SEC that may at any time permit a holder to sell securities of the Purchaser to the public without registration, the Purchaser shall, until the first (1st) anniversary of the Closing Date: (a) make and keep public information available, as those terms are understood and defined in Rule 144, at all times after the date hereof; (b) use its commercially reasonable efforts to file with the SEC in a timely manner all reports and other documents required of the Purchaser under the Securities Act and the Exchange Act, at any time after the date hereof; and (c) furnish to the Stockholders' Representative so long as the Selling Stockholders own shares of Purchaser Equity, promptly upon request, a written statement by the Purchaser as to its compliance with the reporting requirements of Rule 144 and of the Securities Act and the Exchange Act.

**4.9 Third Party Recoveries**. Any recovery, whether by way of settlement or judgment, received by any Purchaser Person from a Third Party pursuant to a legal proceeding in connection with claims that a Third Party has infringed an issued patent falling within the Company Patent Rights shall first be subject to Section 11(e) of the License Agreement, and then any "such other amounts" as set forth in 11(e)(ii) that may be retained by the Purchaser (referred to as the Company in Section 11(e)(ii) of the License Agreement) shall first be used to reimburse the Purchaser Person (if it is the party that initiated such legal proceeding) for its reasonable actual out-of-pocket fees, costs and expenses incurred in connection with such proceeding, to the extent not previously reimbursed; any remaining amounts from any such settlement or judgment (the "**Remaining Amounts**") shall be divided as follows: (i) the Selling Stockholders shall retain or receive, as applicable, the Additional Payments that they would have otherwise received under Section 1.2(a)(vi) had the Remaining Amounts constituted Net Sales (but only if such Additional Payments

have not already been paid by the Purchaser to the Selling Stockholders on such Net Sales), and (ii) all other such amounts (including any punitive or exemplary damages) shall be divided [***]. All amounts payable to the Selling Stockholders pursuant to this Section 4.9 are referred to herein as the "**Selling Stockholder Third Party Recovery Share**".

**SECTION 5. Additional Covenants**.

**5.1 Confidentiality**. The provisions of the Confidential Disclosure Agreement, dated as of [***], by and between [***], and the Confidential Disclosure Agreement dated as of [***], by and between [***], are incorporated herein by reference as if fully set forth herein.

**5.2 Tax Matters**. All transfer, documentary, sales, use, stamp, registration and other substantially similar Taxes and fees incurred in connection with this Agreement (collectively, "***Transfer Taxes***") will be paid half by the Purchaser and half by the Selling Stockholders.

**SECTION 6. Conditions Precedent to Obligations of Purchaser**.

The obligations of the Purchaser to consummate the transactions contemplated by this Agreement are subject to the satisfaction (or waiver by the Purchaser), at or prior to the Closing, of each of the following conditions:

**6.1 Completion of Satisfactory Due Diligence Investigation**. The Purchaser shall have completed its business, financial, legal and Tax due diligence investigation, and the Purchaser, in its discretion, shall have been satisfied with the results of such investigation.

**6.2 Agreements and Documents**. The Purchaser shall have received the following agreements and documents, each of which shall be in full force and effect:

**(a) Secretary's Certificate**. A certificate from the Company's Secretary, having attached thereto (i) the Company's Certificate of Incorporation as in effect at the time of the Closing, (ii) the Company's Bylaws as in effect at the time of the Closing, (iii) resolutions approved by the Board of Directors approving the Transactional Agreements and authorizing the Transactions, (iv) resolutions approved by the Selling Stockholders approving the Transactional Agreements and authorizing the Transactions, and (v) good standing certificates with respect to the Company from the applicable authority(ies) in Delaware and any other jurisdiction in which the Company is qualified to do business, dated no more than eight (8) Business Days prior to the Closing.

**(b) Market Standoff Agreement**. Each of the Selling Stockholders shall have executed a Market Stand-Off Agreement in the form presented by the Purchaser, which shall be in full force and effect with respect to the Purchaser Equity.

**(c) Non-Competition Agreements**. Each of the Seller Principals shall have executed a Non-Competition Agreement on terms and conditions satisfactory to the Purchaser, which shall be in full force and effect upon and immediately following the Closing (the "***Non-Competition Agreement***").

**(d) Consulting Agreements**. Each of the Seller Principals of JAK1 and JAK2 shall have executed a Consulting Agreement on terms and conditions satisfactory to the Purchaser, which shall be in full force and effect upon and immediately following the Closing, subject to conditions subsequent as provided therein (the "***Consulting Agreements***").

**(e) Indemnity and Other Actions Commitment Agreement**. The Seller Principals shall each have executed an indemnity and other actions commitment agreement regarding certain related matters on terms and conditions satisfactory to the Purchaser, which shall be in full force and effect upon and immediately following the Closing (the "***Indemnity Commitment Agreement***").

**(f) Employer Consents**. Each Seller Principal of JAK1 and JAK2 shall have delivered a copy of a consent from such Seller Principal's employer on terms acceptable to the Purchaser.

**(g) License Agreement**. The Company shall have delivered a copy of the fully executed License Agreement, which shall be in full force and effect upon and immediately following the Closing.

**(h) Resignations**. The Company shall deliver to the Purchaser resignation letters from the Seller Principals and each other director, officer, and employee of the Company, with confirmation by each such person he or she has no claim against the Company for compensation for loss of office or otherwise (the "***Resignation Letters***").

**(i) Termination of Company Agreements**. The Company shall have delivered evidence reasonably satisfactory to the Purchaser of the termination (subject to expiration of any applicable notice term) by the Company of (i) the Mutual Confidentiality Agreement by and between [***], dated as of [***], (ii) the Mutual Confidential Disclosure Agreement by and between [***], dated as of [***], and (iii) the Mutual Confidentiality Agreement by and between [***], dated as of [***].

**(j) FIRPTA Certificate**. The Company shall have delivered to Purchaser: (i) a statement conforming to the requirements of Section 1.897-2(h)(1)(i) of the United States Treasury Regulations; and (ii) the notification to the Internal Revenue Service required under Section 1.897-2(h)(2) of the United States Treasury Regulations.

**(k) Stub Return**. The Company shall have delivered evidence reasonably satisfactory to the Purchaser of the filing of a Tax Return and payment of all Taxes relating to any Tax period of the Company ending on or before the Closing Date.

**6.3 No Proceedings; Restraints**.

**(a)** No Governmental Body or other Person shall have commenced or threatened to commence any Proceeding against the Company or any Proceeding (i) challenging or seeking the recovery of a material amount of damages in connection with the transfer of the Shares or the transactions contemplated by this Agreement; (ii) seeking to prohibit or limit the

exercise by Purchaser of any material right pertaining to its ownership of stock of the Company; or (iii) claiming to own any capital stock of the Company, or option or other right to acquire capital stock of the Company, or right to receive consideration as a result of the transfer of the Shares.

**(b)** No Person shall have made or threatened any claim asserting that such Person (a) may be the holder or the beneficial owner of, or may have the right to acquire or to obtain beneficial ownership of, any capital stock or other securities of the Company, or (b) may be entitled to all or any portion of the Consideration.

**(c)** No temporary restraining order, preliminary or permanent injunction or other order preventing the consummation of this Agreement shall have been issued by any court of competent jurisdiction and remain in effect, and there shall not be any Legal Requirement enacted or deemed applicable to the transfer of the Shares that makes consummation of this Agreement illegal under applicable law.

**6.4 Third Party Consents**. Each of the Consents required to be obtained by the Company or the Selling Stockholders from any Person in connection with the execution and delivery of any of the Transactional Agreements or the consummation or performance of any of the Transactions shall have been obtained and shall be in full force and effect.

**SECTION 7. Conditions Precedent to the Obligations of Selling Stockholders**.

The obligations of Selling Stockholders to consummate the transactions contemplated by this Agreement are subject to the satisfaction (or waiver by the Selling Stockholders), at or prior to the Closing, of each of the following conditions:

**7.1 Agreements and Documents**. The Company and the Selling Stockholders shall have received a certificate from the Secretary of the Purchaser, having attached thereto (a) the Certificate of Incorporation of the Purchaser as in effect at the time of the Closing, (b) the Bylaws of the Purchaser as in effect at the time of the Closing, and (c) resolutions approved by the Board of Directors of the Purchaser approving the Transactional Agreements and authorizing the Transactions.

**7.2 No Proceedings; Restraints**.

**(a)** No Governmental Body or other Person shall have commenced or threatened to commence any Proceeding against the Company or the Purchaser or any Proceeding (i) challenging or seeking the recovery of a material amount of damages in connection with the transfer of the Shares or the transactions contemplated by this Agreement; (ii) seeking to prohibit or limit the exercise by the Purchaser or Selling Stockholders of any material right pertaining to its ownership of stock of the Company; or (iii) claiming to own any capital stock of the Company, or option or other right to acquire capital stock of the Company, or right to receive consideration as a result of the transfer of the Shares.

**(b)** No Person shall have made or threatened any claim asserting that such Person (i) may be the holder or the beneficial owner of, or may have the right to acquire or to

obtain beneficial ownership of, any capital stock or other securities of the Company, or (ii) may be entitled to all or any portion of the Consideration.

**(c)** No temporary restraining order, preliminary or permanent injunction or other order preventing the consummation of this Agreement shall have been issued by any court of competent jurisdiction and remain in effect, and there shall not be any Legal Requirement enacted or deemed applicable to the transfer of the Shares that makes consummation of this Agreement illegal under applicable law.

**7.3 Third Party Consents**. Each of the Consents required to be obtained by the Purchaser from any Person in connection with the execution and delivery of any of the Transactional Agreements or the consummation or performance of any of the Transactions shall have been obtained and shall be in full force and effect.

**SECTION 8. Intentionally Omitted**

**SECTION 9. Indemnification, Etc**.

**9.1 Survival of Representations and Covenants**. The representations and warranties contained in this Agreement or in any certificate delivered pursuant hereto shall survive until the 18 month anniversary of the Closing Date (the "***Expiration Date***"), *provided* that the representations and warranties contained in Sections 2.1, 2.2, 2.3, 2.6, 2.10 (other than Section 2.10(h)), 2.14, 3.1, 3.2 and 3.3 (the "***Fundamental Representations***") shall survive the Closing until the lapse of the applicable statute of limitations period (giving effect to any tolling of such period or other waiver, mitigation or extension thereof) if such period would extend past the Expiration Date; and, *provided, further*, that, notwithstanding the foregoing, the representations and warranties contained in Section 2.6 shall survive the Closing until the third (3rd) anniversary of the Closing, the representations and warranties contained in Section 2.10 (other than Section 2.10(h)) shall survive the Closing until the fifth (5th) anniversary of the Closing, and the representations and warranties contained in Section 2.10(h) and the second sentence of Section 2.20 shall survive until the expiration of the last-to-expire Valid Claim in the Company Patent Rights. Each party's indemnification obligations with respect to each of the representations and warranties pursuant to this Agreement shall terminate when the applicable representation or warranty terminates pursuant to this Section 9.1; *provided, however*, that such obligations to indemnify shall not terminate with respect to a particular item as to which, before the expiration of the applicable survival period, the party seeking indemnification has made a claim by delivering a timely notice of such claim (in accordance with the terms of this Section) to the parties from which indemnification is sought. As used in this Section 9.1, "statute of limitations" does not mean the three (3) year statute of limitations applicable to a claim for breach of contract. The parties to this Agreement agree that: (a) in the case of the survival periods specified in this Section 9.1 ending upon the lapse of the applicable statute of limitations period (giving effect to any tolling of such period or other waiver, mitigation or extension thereof), the parties intend, and hereby contractually agree, that such survival period shall be (and for the avoidance of doubt shall not expire prior to the end of) the maximum period during which an action based on a written contract, agreement or undertaking involving at least $100,000 may be brought pursuant to Section 8106(c), Title 10 of the Delaware Code, and (b) in the case of the eighteen (18) month survival periods

specified in this Section 9.1, the parties intend to shorten the applicable statute of limitations period with respect to such claims.

**9.2 Indemnification by the Selling Stockholders**. From and after the Closing, the Selling Stockholders and, via the Indemnity Commitment Agreement, the Seller Principals (the Selling Stockholders, together with the Seller Principals, the "***Seller Indemnifying Parties***") will, severally and not jointly (with each Seller Principal being severally liable only with the Selling Stockholder to which it is the owner as of the Effective Date), indemnify the Purchaser, the Purchaser's current and future Affiliates, the respective Representatives of the foregoing Persons, and the respective successors and permitted assigns of the foregoing Persons, and, without duplication, the Company (each a "***Purchaser Indemnified Party***" and collectively the "***Purchaser Indemnified Parties***"), and hold them harmless from any and all Damages arising (regardless of whether or not Damages relate to any Third Party claim) out of (i) any breach of, or inaccuracy in, any representation or warranty made by the Selling Stockholders or any Seller Principal(s) pursuant to this Agreement or any Transactional Agreement; (ii) any breach of any covenant made or to be performed by the Selling Stockholders or any of the Seller Principal(s) pursuant to this Agreement or any Transactional Agreement; (iii) any and all Taxes of the Company attributable to, with respect to, or otherwise relating to any Tax period ending on or before the Closing Date; and (iv) any Proceeding relating to any matters specified in (i), (ii) or (iii) above (including any Proceeding commenced by a Purchaser Indemnified Party for the purpose of enforcing any of its rights under this Section 9) (collectively, "***Purchaser Indemnifiable Claims***"). The indemnification obligations in this Section 9.2 shall be subject to the limitations set forth in Section 9.5.

**9.3 Indemnification by the Purchaser**. From and after the Closing, the Purchaser (together with the Seller Indemnifying Parties, the "***Indemnifying Parties***") will indemnify the Selling Stockholders, their Affiliates (including the Seller Principals), the respective Representatives of the foregoing Persons, and the respective successors, heirs and permitted assigns of the foregoing Persons (each a "***Seller Indemnified Party***" and collectively the "***Seller Indemnified Parties***" and together with the Purchaser Indemnified Parties, the "***Indemnified Parties***"), and hold them harmless from any and all Damages arising (regardless of whether or not Damages relate to any third party claim) out of (i) any breach of, or inaccuracy in, any representation or warranty made by the Purchaser pursuant to this Agreement; (ii) any breach of any covenant contained in Sections 4.2 and 4.5 of this Agreement, and (iii) any Proceeding relating to any such matters (including any Proceeding commenced by a Seller Indemnified Party for the purpose of enforcing any of its rights under this Section 9) (collectively, "***Seller Indemnifiable Claims***"). The indemnification obligations in this Section 9.3 shall be subject to the limitations set forth in Section 9.5. **FOR PURPOSES OF CLARITY, THE SELLING STOCKHOLDERS IRREVOCABLY AND EXPRESSLY ACKNOWLEDGE AND AGREE THAT THE SELLER INDEMNIFIED PARTIES ARE AND WILL NOT BE ENTITLED TO ANY INDEMNIFICATION, MONEY DAMAGES, OR OTHER REMEDIES UNDER OR IN CONNECTION WITH THIS AGREEMENT THAT ARISE UNDER OR RELATE TO SECTION 4.1(A) OR (B), EXCEPT THAT THE SOLE REMEDIES RELATING THERETO ARE AS SET FORTH IN SECTION 4.7.**

**9.4 Procedures**.

**(a) Notice of Losses by Purchaser Indemnified Party**. As soon as reasonably practicable after becoming aware of a claim for indemnification, a Purchaser Indemnified Party shall give prompt notice to the Stockholders' Representative of any direct claim for indemnification or the assertion of any claim or the commencement of any suit, action or proceeding respect of which indemnity may be sought under Section 9; *provided* that the failure to give such notice shall not affect the rights of the Purchaser Indemnified Party except to the extent the Seller Indemnifying Parties are materially and adversely prejudiced by such failure. If the Stockholders' Representative does not object in writing to such indemnification claim within twenty (20) business days of receiving notice thereof, the Purchaser Indemnified Party shall be entitled to recover promptly from the Seller Indemnifying Parties the amount of such claim, and no later objection by the Seller Indemnifying Parties shall be permitted. If the Stockholders' Representative agrees that the Seller Indemnifying Parties have an indemnification obligation but believes that they are obligated to pay only a lesser amount, the Purchaser Indemnified Party shall nevertheless be entitled to recover promptly from the Seller Indemnifying Parties the lesser amount, without prejudice to the Indemnified Party's claim for the difference.

**(b) Notice of Losses by Seller Indemnified Party**. As soon as reasonably practicable after becoming aware of a claim for indemnification, a Seller Indemnified Party shall give prompt notice to the Purchaser of any direct claim for indemnification or the assertion of any claim or the commencement of any suit, action or proceeding respect of which indemnity may be sought under Section 9; *provided* that the failure to give such notice shall not affect the rights of the Seller Indemnified Party except to the extent the Purchaser is materially and adversely prejudiced by such failure. If the Purchaser does not object in writing to such indemnification claim within twenty (20) business days of receiving notice thereof, the Seller Indemnified Party shall be entitled to recover promptly from the Purchaser the amount of such claim, and no later objection by the Purchaser shall be permitted. If the Purchaser agrees that the Purchaser has an indemnification obligation but believes that it is obligated to pay only a lesser amount, the Purchaser shall nevertheless be entitled to recover promptly from the Seller Indemnifying Parties the lesser amount, without prejudice to the Seller Indemnified Party's claim for the difference.

**(c)** At the election of the Purchaser or the Stockholders' Representative, as applicable, the Indemnifying Party also may, at its own expense, assume the initial defense of any claim, suit, action or proceeding (or any portion thereof) for a period of thirty (30) days. If the Indemnifying Party desires to continue to assume such defense after the expiration of such thirty (30) days, it may do so upon (i) obtaining the written consent of the Indemnified Party which expressly allows the Indemnifying Parties to assume such defense while reserving their rights to challenge the Indemnified Party's indemnification claim, or (ii) providing notice to the Indemnified Party delivering to the Indemnified Party a written agreement that the Indemnified Party is entitled to indemnification pursuant to this Section 9.4(c) and all Damages arising out of such claim, suit, action or proceeding, at any time during the course of any such claim, suit, action or proceeding. The immediately preceding sentence is subject to (i) the Indemnifying Party's counsel being reasonably satisfactory to the Indemnified Party and (ii) the Indemnifying Party thereafter consulting with the Indemnified Party upon the Indemnified Party's reasonable request

for such consultation from time to time with respect to such claim, suit, action or proceeding. If the Indemnifying Parties assume such defense, the Indemnified Party shall have the right (but not the obligation) to participate in the defense thereof and to employ counsel, at its own expense, separate from the counsel employed by the Indemnifying Parties. If, however, the named parties in any such claim, suit, action or proceeding include both the Indemnifying Party and the Indemnified Party, and in the opinion of counsel to the Indemnified Party representation by the Indemnifying Party's counsel of both the Indemnifying Party and the Indemnified Party would present a conflict of interest, then such Indemnified Party may employ a single separate counsel to represent or defend it in any such claim, action, suit or proceeding and the Indemnifying Parties shall pay the reasonable fees and disbursements of such separate counsel.

**(d)** Whether or not the Indemnifying Party chooses to defend or prosecute any such claim, suit, action or proceeding, all of the parties hereto shall cooperate in the defense or prosecution thereof, provided that the Indemnified Party shall not be obligated to incur any out-of-pocket expenses except to the extent the Indemnifying Party agrees in writing to reimburse the Indemnified Party for such expenses as they are incurred. The Indemnifying Parties shall not be liable under Section 9.4 for any settlement effected without the Indemnifying Party's consent of any claim, litigation or proceeding in respect of which indemnity may be sought hereunder; provided that such consent shall not be unreasonably withheld. Without the consent of the Indemnified Party, which consent shall not be unreasonably withheld, the Indemnifying Parties shall not settle any claim, litigation or proceeding in respect of which indemnity may be sought hereunder if such settlement involves an admission of liability or wrongdoing on the part of the Indemnified Party, a restriction on the operation or ownership of the Indemnified Party's business in the future or would adversely affect the business reputation or tax liability of the Indemnified Party.

**(e)** All indemnification payments made pursuant to this Article 9 shall be treated as an adjustment to the Consideration unless otherwise required by law.

**9.5 Limitation on Liability**.

**(a)** Except in the case of intentional misrepresentation, fraud, willful misconduct or willful breach of this Agreement or any of the Transactional Agreements by the Selling Stockholders, the Seller Indemnifying Parties shall not be required to indemnify any Purchaser Indemnified Party pursuant to Section 9.2(i), and shall not have any liability for any Damages thereof, if, with respect to any individual such Damage item, such item is less than $1,000 ("***Purchaser Minor Claims***"). The Seller Indemnifying Parties shall not have any liability for Damages pursuant to Section 9.2(i) until the aggregate amount of all such Damages exceeds on a cumulative basis an amount equal to $25,000 (the "***Basket***"), in which case the Seller Indemnifying Parties shall become liable for all of such Damages pursuant to Section 9.2(i) that are not Purchaser Minor Claims from the first dollar. The Seller Indemnifying Parties shall not be required to indemnify any Purchaser Indemnified Party pursuant to indemnification under Section 9.2(i) (other than with respect to the Fundamental Representations) and shall not have any further liability once the aggregate amount of all payments made by or on behalf of the Seller Indemnified Parties pursuant to indemnification under Section 9.2(i) (other than with respect to the Fundamental

Representations) equals $3,554,633 (the "***Cap***") (with each individual Selling Stockholder's aggregate liability for Damages not to exceed its Pro Rata Percentage of the Cap). The Seller Indemnifying Parties shall not be required to indemnify any Purchaser Indemnified Party pursuant to indemnification under Section 9.2(i) with respect to the Fundamental Representations, and shall not have any further liability, once the aggregate amount of all payments made by or on behalf of the Seller Indemnified Parties pursuant to indemnification under Section 9.2(i) with respect to all representations (including the Fundamental Representations) equals the aggregate amount of Consideration paid by the Purchaser to the Selling Stockholders (with each individual Selling Stockholder's aggregate liability for Damages not to exceed its Pro Rata Percentage of the Consideration).

**(i)** Notwithstanding anything contained in this Agreement to the contrary, the sole and exclusive source to satisfy any claim with respect to any breach of or inaccuracy in either Section 2.10(h) or the second sentence of Section 2.20 shall be an offset of Damages pursuant to Section 9.6 solely out of any Back-End Payments otherwise payable by the Purchaser (if any) after delivery of a notice of such breach or inaccuracy pursuant to Section 9.4(a); *provided*, that, subject to the limitations set forth in Section 9.5(a) above, the aggregate liability of the Seller Indemnifying Parties with respect to any breach of or inaccuracy in either Section 2.10(h) or the second sentence of Section 2.20 shall not exceed (and be limited to) an offset pursuant to Section 9.6 in an amount equal to 100% of any Back-End Payments otherwise payable by the Purchaser (if any) after delivery of a notice of such breach or inaccuracy pursuant to Section 9.4(a). Any amount offset against the Selling Stockholders pursuant to Section 9.6 shall be deemed paid by the Selling Stockholders to the Purchaser Indemnified Parties for purposes of determining the maximum liability of the Selling Stockholders hereunder.

**(ii)** The aggregate liability of any Seller Indemnifying Party with respect to any Damage shall not exceed such party's Pro Rata Percentage as set forth on Schedule 5. No Selling Stockholder will have any indemnification obligation with respect to (i) any breach or inaccuracy of a representation or warranty made by any other particular Selling Stockholder, or (ii) the breach of any covenant or other agreement to be performed by any other particular Selling Stockholder. For the avoidance of doubt, any representation, warranty, covenant or other agreement made with respect to any Selling Stockholder shall be deemed made solely by such particular Selling Stockholder.

**(b)** Except in the case of intentional misrepresentation, fraud, willful misconduct or willful breach of this Agreement or any of the Transactional Agreements by the Company or Purchaser, the Purchaser shall not be required to indemnify any Seller Indemnified Party pursuant to Section 9.3(i), and shall not have any liability for any Damages thereof, if, with respect to any individual such Damage item, such item is less than $1,000 ("***Seller Minor Claims***"). The Purchaser shall not have any liability for Damages pursuant to Section 9.3(i) until the aggregate amount of all such Damages exceeds on a cumulative basis the Basket, in which case the Purchaser shall become liable for all of such Damages pursuant to Section 9.3(i) that are not Seller Minor Claims from the first dollar. Notwithstanding anything herein or otherwise to the contrary, the Purchaser shall not be required to indemnify any Seller Indemnified Party pursuant to indemnification under Section 9.3(i) and shall not have any further liability once the aggregate

amount of all payments made by or on behalf of the Purchaser Indemnified Parties pursuant to indemnification under Section 9.3(i) equals the Cap.

**(c)** Except as specifically set forth in this Section 9 or elsewhere in this Agreement, the foregoing indemnity provisions shall be the sole and exclusive remedy of the Indemnified Parties relating to Damages arising from the breach of or inaccuracy in any representations and warranties or covenants set forth in this Agreement, except (i) in the case of intentional misrepresentation or fraud and (ii) with respect to covenants not listed in Section 9.3(ii), and each party expressly waives any other rights or remedies it may have.

**(d)** Each Selling Stockholder hereby irrevocably waives, acknowledges, and agrees that it will not have and will not exercise or assert (or attempt to exercise or assert), any right of contribution, right of indemnity or other right or remedy against the Company in connection with any indemnification obligation or any other liability to which it may become subject under or in connection with this Agreement.

**(e) EXCLUSION OF CONSEQUENTIAL DAMAGES. EXCEPT WITH RESPECT TO A BREACH OF SECTION 10.6 OR DAMAGES AWARDED TO ANY THIRD PARTY CLAIMANT BY A COURT OF COMPETENT JURISDICTION (OR ANY AMOUNTS PAYABLE TO SUCH THIRD PARTY PURSUANT TO A SETTLEMENT OR COMPROMISE) FOR WHICH A PARTY HAS INDEMNIFIED THE OTHER UNDER THIS SECTION 9, NO PARTY HERETO, NOR ANY OF THEIR RESPECTIVE AFFILIATES, WILL BE LIABLE TO ANY OTHER PARTY OR SUCH OTHER PARTY'S RESPECTIVE AFFILIATES (INCLUDING, IN THE CASE OF THE SELLING STOCKHOLDERS, THE SELLER PRINCIPALS), FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL, EXEMPLARY OR PUNITIVE DAMAGES, INCLUDING LOSS OF FUTURE REVENUE, INCOME OR PROFITS, OR ANY DIMINUTION OF VALUE OR MULTIPLES OF EARNINGS DAMAGES, ARISING OUT OF THIS AGREEMENT OR ANY TRANSACTIONAL AGREEMENT (INCLUDING A BREACH HEREOF OF THEREOF), WHETHER SUCH LIABILITY IS ASSERTED IN CONTRACT, TORT (INCLUDING NEGLIGENCE AND STRICT PRODUCT LIABILITY), INDEMNITY OR CONTRIBUTION, AND IRRESPECTIVE OF WHETHER SUCH PARTY OR ANY REPRESENTATIVE OF SUCH PARTY HAS BEEN ADVISED OF, OR OTHERWISE MIGHT HAVE ANTICIPATED THE POSSIBILITY OF, ANY SUCH LOSS OR DAMAGE**.

**9.6 Setoff**. The Purchaser shall have the right to set off any Damages finally determined to be owed to any Purchaser Indemnified Party in accordance with the provisions of this Section 9 against any amount otherwise payable by the Purchaser Indemnified Parties to any of the Selling Stockholders, including, without limitation, any amounts payable to any of the Selling Shareholders in respect of any Back-End Payments pursuant to Section 1.2. In the event a good faith claim for indemnification has been made pursuant to this Section 9, but Damages have not been finally determined in accordance with the provisions hereof as of the date a Back-End Payment would otherwise be due pursuant to Section 1.2, the Purchaser shall have the right to hold back a portion of the Back-End Payment in an amount equal to the amount of the Damages sought

until such indemnification claim(s) have been finally resolved and any Damages have been finally determined in accordance with the provisions hereof. Once such claims are so finally resolved and any Damages have been finally determined, such Back-End Payment shall be subject to set off, if applicable, in accordance with the first sentence of this Section 9.6, and the Purchaser shall promptly pay any balance due to the Selling Stockholders in accordance with Section 1.2. Notwithstanding the foregoing, the provisions of this Section 9.6 are subject to the limitations set forth in Section 9.5(a)(ii).

**SECTION 10. Miscellaneous Provisions**

**10.1 Release**. The Consideration allocated to the Selling Stockholders pursuant to Section 1.2 (earned as applicable) represents the only payment or consideration to be received by the Selling Stockholders in exchange for the Shares owned by the Selling Stockholders, and upon receipt of that portion of the Consideration payable at the Closing, each Selling Stockholder, for such Selling Stockholder and its successors and assigns (collectively, the "***Releasors***"), hereby forever fully and irrevocably releases and discharges the Company and the Purchaser and, in their capacities as such, the Company's predecessors, successors, subsidiaries, managers, directors, officers, employees, agents, and representatives (collectively, the "***Released Parties***") from any and all actions, suits, claims, demands, debts, sums of money, accounts, reckonings, bonds, bills, covenants, Contracts, controversies, promises, judgments, Liabilities or obligations of any kind whatsoever in law or equity, or otherwise (including claims for damages, costs, expenses, and attorneys', brokers' and accountants' fees and expenses), as well as all other events, facts, conditions or circumstances existing or arising prior to the Closing Date, which the Releasors can, shall or may have against the Released Parties, and that now exist or may hereafter accrue with respect to periods prior to the Closing (collectively, the "***Released Claims***"), *provided, however*, that Released Claims shall not include claims available to the Releasors under this Agreement or any of the other Transactional Agreements or resulting from any future course of dealings or activities between or among any Releasors and any Released Parties or otherwise outside of this Agreement or any of the other Transactional Agreements. The Releasors shall refrain from asserting any claim or demand or commencing (or causing to be commenced) any Proceeding, in any court or before any tribunal, against any Released Party based upon any Released Claim.

**10.2 Further Assurances**. Each party hereto shall execute and/or cause to be delivered to each other party hereto such instruments and other documents, and shall take such other actions, as such other party may reasonably request (prior to, at or after the Closing) for the purpose of carrying out or evidencing any of the Transactions. The Purchaser shall reimburse the Selling Stockholders for any reasonable, out-of-pocket costs incurred by the Selling Stockholders after the Closing in complying with any requests of the Company or Purchaser under this Section 10.2.

**10.3 Fees and Expenses**. Except as otherwise provided in this Agreement (including this Section 10.3), the parties shall each bear and pay all of their own fees, costs and expenses, including all legal fees and expenses payable to their respective legal, tax and accounting advisors that have been incurred or that are in the future incurred by them in connection with the negotiation, consummation and performance of the Transactions and all certificates, opinions and other instruments and documents delivered or to be delivered in connection with the Transactions, it

being confirmed and agreed that, notwithstanding the foregoing, the Selling Stockholders will be responsible for 100% of the fees, costs and expenses of the Company in connection with all such matters incurred by or at the direction of any Selling Stockholder or Seller Principal.

**10.4 Attorneys' Fees**. If any legal action or other legal proceeding relating to any of the Transactional Agreements or the enforcement of any provision of any of the Transactional Agreements is brought against any party hereto, the prevailing party shall be entitled to recover reasonable attorneys' fees, costs and disbursements (in addition to any other relief to which the prevailing party may be entitled).

**10.5 Notices**. Any notice or other communication required or permitted to be delivered to any party under this Agreement shall be in writing and shall be deemed properly delivered, given and received when delivered (by hand, by courier or express delivery service or by facsimile or electronic transmission, with written confirmation of receipt) to the address, facsimile number or email address set forth beneath the name of such party below (or to such other address, facsimile number or email address as such party shall have specified in a written notice given to the other parties hereto):

if to the Stockholders' Representative or to the Selling Stockholders:

Shareholder Representative Services LLC
1614 15th Street, Suite 200
Denver, CO 80202
Attention: Managing Director
E-mail: deals@srsacquiom.com
Telephone: (303) 648-4085
Facsimile: (303) 623-0294

with a copy (which copy shall not constitute notice) to:

Sills Cummis & Gross P.C.
One Riverfront Plaza
Newark, NJ 07102
Attention: Lori M. Waldron, Esq.
Facsimile: (973) 643-6500
E-mail: lwaldron@sillscummis.com

if to the Company (after the Closing) or the Purchaser:

Aclaris Therapeutics, Inc.
101 Lindenwood Drive, Suite 400
Malvern, PA 19355
Attention: Kamil Ali-Jackson, Chief Legal Officer
Facsimile: (484) 320-2344
Email: kalijackson@aclaristx.com

with a copy (which copy shall not constitute notice) to each of:

Cooley LLP
One Freedom Square, Reston Town Center
11951 Freedom Drive
Reston, VA 20190-5656
Attention: Brent Siler / Geoff Willard / Chris Martin
Email: bsiler@cooley.com / gwillard@cooley.com / cmartin@cooley.com

**10.6 Confidentiality; Publicity**.

**(a)** Unless otherwise required by a Legal Requirement, on and at all times after the Closing, no Purchaser Person or Company Person shall make any public announcements in respect of this Agreement or the Transactions or otherwise communicate with any news media without the prior written consent of the Stockholders' Representative or the Purchaser, respectively (which consent shall not be unreasonably withheld or delayed), and the parties shall cooperate as to the timing and contents of any such announcement. If the Purchaser is required by a Legal Requirement to file a Form 8-K or other public filing, it shall as soon as reasonably practicable provide the Stockholders' Representative with a copy of such filing, and shall consider in good faith all comments to such filing promptly provided by the Stockholders' Representative.

**(b)** Unless otherwise required by a Legal Requirement, on and at all times after the Closing, no Purchaser Person shall disclose the terms of this Agreement to any Third Party without the prior written consent of the Stockholders' Representative, except (i) to current or prospective banks or other financial institutions or investors for the purpose of raising capital or borrowing money, (ii) to any Person who proposes to be a licensee, a Sublicensee, or to otherwise succeed (by merger, operation of law or otherwise) to all of such Purchaser Person's right, title and interest in, to and under this Agreement, (iii) to any Person who acquires all or substantially all of the assets or equity of a Purchaser Person or all or substantially all of the Products that are the subject of this Agreement or the License Agreement, (iv) to any Purchaser Person's legal or financial advisors, or (v) as such Purchaser Person determines in good faith is necessary in order to operate its business; in each case of (i), (ii), (iii), (iv) and (v), if such Third Party agrees to maintain the confidentiality of such terms pursuant to a standard form of confidentially agreement.

**10.7 Time of the Essence**. Time is of the essence of this Agreement.

**10.8 Headings**. The underlined headings contained in this Agreement are for convenience of reference only, shall not be deemed to be a part of this Agreement and shall not be referred to in connection with the construction or interpretation of this Agreement.

**10.9 Counterparts**. This Agreement may be executed and delivered in several counterparts (including facsimile, PDF, or other electronic counterparts or via DocuSign or a similar electronic signature service), each of which shall constitute an original and all of which, when taken together, shall constitute one agreement.

**10.10 Governing Law; Venue; Waiver of Jury Trial**.

**(a)** This Agreement shall be construed in accordance with, and governed in all respects by, the internal laws of the State of Delaware (without giving effect to principles of conflicts of laws resulting in the application of the laws of any other jurisdiction to this Agreement).

**(b)** ANY LEGAL SUIT, ACTION OR PROCEEDING ARISING OUT OF OR BASED UPON THIS AGREEMENT, THE OTHER TRANSACTIONAL AGREEMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY MAY BE INSTITUTED IN THE FEDERAL COURTS OF THE UNITED STATES OF AMERICA OR THE COURTS OF THE STATE OF DELAWARE IN EACH CASE LOCATED IN THE COUNTY OF NEW CASTLE, AND EACH PARTY IRREVOCABLY SUBMITS TO THE EXCLUSIVE JURISDICTION OF SUCH COURTS IN ANY SUCH SUIT, ACTION OR PROCEEDING. SERVICE OF PROCESS, SUMMONS, NOTICE OR OTHER DOCUMENT BY MAIL TO SUCH PARTY'S ADDRESS SET FORTH HEREIN SHALL BE EFFECTIVE SERVICE OF PROCESS FOR ANY SUIT, ACTION OR OTHER PROCEEDING BROUGHT IN ANY SUCH COURT. THE PARTIES IRREVOCABLY AND UNCONDITIONALLY WAIVE ANY OBJECTION TO THE LAYING OF VENUE OF ANY SUIT, ACTION OR ANY PROCEEDING IN SUCH COURTS AND IRREVOCABLY WAIVE AND AGREE NOT TO PLEAD OR CLAIM IN ANY SUCH COURT THAT ANY SUCH SUIT, ACTION OR PROCEEDING BROUGHT IN ANY SUCH COURT HAS BEEN BROUGHT IN AN INCONVENIENT FORUM.

**(c)** EACH PARTY ACKNOWLEDGES AND AGREES THAT ANY CONTROVERSY WHICH MAY ARISE UNDER THIS AGREEMENT OR THE OTHER TRANSACTIONAL AGREEMENTS IS LIKELY TO INVOLVE COMPLICATED AND DIFFICULT ISSUES AND, THEREFORE, EACH SUCH PARTY IRREVOCABLY AND UNCONDITIONALLY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LEGAL ACTION ARISING OUT OF OR RELATING TO THIS AGREEMENT, THE OTHER TRANSACTIONAL AGREEMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY. EACH PARTY TO THIS AGREEMENT CERTIFIES AND ACKNOWLEDGES THAT (A) NO REPRESENTATIVE OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT SEEK TO ENFORCE THE FOREGOING WAIVER IN THE EVENT OF A LEGAL ACTION, (B) SUCH PARTY HAS CONSIDERED THE IMPLICATIONS OF THIS WAIVER, (C) SUCH PARTY MAKES THIS WAIVER VOLUNTARILY, AND (D) SUCH PARTY HAS BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION 10.10(C).

**10.11 Successors and Assigns**. This Agreement shall be binding upon: the Company and its successors and assigns (if any); the Selling Stockholders and their respective personal representatives, executors, administrators, estates, heirs, successors and assigns (if any); the Purchaser and its successors and assigns (if any); and the Stockholders' Representative. This Agreement shall inure to the benefit of: the Company; the Selling Stockholders; the Purchaser; and the respective successors and permitted assigns (if any) of the foregoing. No party may assign

any of its rights or obligations under this Agreement; provided, however, that the Purchaser may freely assign any or all of its rights under this Agreement (including its indemnification rights under Section 9), in whole or in part, (x) to any direct or indirect wholly owned subsidiary of the Purchaser or (y) to any acquiror of the Purchaser or substantially all of the Purchaser's equity or assets, in each case without obtaining the consent or approval of any other party hereto or of any other Person (but with providing a notice to the Stockholder Representative promptly following such assignment); *provided* that in the case of an assignment under the immediately preceding clause (x) or (y), the successor shall agree in writing for the benefit of the Selling Stockholders to be bound by the obligations hereunder of the Purchaser and the Company and their respective Affiliates, and any such assignment shall not release the Purchaser of its obligations or liabilities hereunder.

**10.12 Remedies Cumulative; Specific Performance**. Subject to the provisions of Section 9.4(c), the rights and remedies of the parties hereto shall be cumulative (and not alternative). Notwithstanding anything herein to the contrary except the final sentence of Section 4.7, the parties agree that irreparable damage would occur and that the parties would not have any adequate remedy at law in the event any provision of this Agreement was not performed in accordance with the specific terms hereof or were otherwise breached, and any party may seek to specifically enforce any covenant contained herein. It is accordingly agreed that the parties hereto shall be entitled (in addition to any other remedies available to them) to the remedies of specific performance (which shall include the right to obtain an order compelling a party's counterparty hereto to close the transactions contemplated by this Agreement) and injunctive relief (without bond or other security being required and without the necessity of proving the inadequacy of money damages) to prevent breaches or threatened breaches of this Agreement and to enforce specifically the terms and provisions of this Agreement, this being in addition to any other remedy to which they are entitled at law or in equity.

**10.13 Waiver**.

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

**(b)** Except as provided in this Section 10.13(b), no Person shall be deemed to have waived any claim arising out of this Agreement, or any power, right, privilege or remedy under this Agreement, unless the waiver of such claim, power, right, privilege or remedy is expressly set forth in a written instrument duly executed and delivered on behalf of such Person; and any such waiver shall not be applicable or have any effect except in the specific instance in which it is given. Any power, right, privilege or remedy of the Selling Stockholders under this Agreement may be waived in writing by the Stockholders' Representative.

**10.14 Amendments and Waivers**. This Agreement may not be amended, modified, altered or supplemented, or any provision hereof waived, other than by means of a written

instrument duly executed and delivered by or on behalf of the Purchaser and the Stockholders' Representative.

**10.15 Severability**. In the event that any provision of this Agreement, or the application of any such provision to any Person or set of circumstances, shall be determined to be invalid, unlawful, void or unenforceable to any extent, the remainder of this Agreement, and the application of such provision to Persons or circumstances other than those as to which it is determined to be invalid, unlawful, void or unenforceable, shall not be impaired or otherwise affected and shall continue to be valid and enforceable to the fullest extent permitted by law.

**10.16 Entire Agreement**. The Transactional Agreements set forth the entire understanding of the parties relating to the subject matter thereof and supersede all prior agreements and understandings among or between any of the parties relating to the subject matter thereof.

**10.17 Construction**. For purposes of this agreement: (a) whenever the context requires: the singular number shall include the plural, and vice versa; the masculine gender shall include the feminine and neuter genders; the feminine gender shall include the masculine and neuter genders; and the neuter gender shall include the masculine and feminine genders; (b) the parties hereto agree that any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not be applied in the construction or interpretation of this Agreement; (c) as used in this Agreement, the words "include" and "including," and variations thereof, shall not be deemed to be terms of limitation, but rather shall be deemed to be followed by the words "without limitation'; (d) except as otherwise indicated, all references in this Agreement to "Sections" and "Exhibits" are intended to refer to Sections of this Agreement and Exhibits to this Agreement; and (e) except as otherwise indicated, all references to days, dates and times shall be to New York local time.

**10.18 Stockholders' Representative**.

**(a)** By virtue of each Selling Stockholder's execution and delivery of this Agreement, each Selling Stockholder shall have approved, among other matters, the indemnification terms set forth in Section 9 and shall irrevocably appoint the Stockholders' Representative as its agent for all purposes of this Agreement, including without limitation to give and receive notices and communications in connection with a claim for indemnification, to amend or waive any provision of this Agreement, to agree to, negotiate, enter into settlements and compromises of, and demand dispute resolution pursuant to this Agreement and comply with orders of courts and awards of arbitrators with respect to indemnification claims, and to take all actions necessary or appropriate in the judgment of the Stockholders' Representative for the accomplishment of the foregoing. The Purchaser shall be entitled to deal exclusively with the Stockholders' Representative on all matters relating to this Agreement and shall be entitled to rely conclusively (without further evidence of any kind whatsoever) on any document executed or purported to be executed on behalf of any Seller Indemnifying Party by the Stockholders' Representative, and on any other action taken or purported to be taken on behalf of any Seller Indemnifying Party by the Stockholders' Representative, as fully binding upon such Seller Indemnifying Party. If the Stockholders' Representative shall resign, be removed or become

unable to fulfill its responsibilities as agent of the Seller Indemnifying Parties, then the Seller Indemnifying Parties shall, within ten (10) days after such resignation, removal or inability, by action of any two (2) Selling Stockholders, appoint a successor agent and, promptly thereafter, shall notify the Purchaser of the identity of and contact information for such successor. Any such successor shall become the "Stockholders' Representative" for purposes of this Agreement. A decision, act, agreement, consent, instruction or waiver of the Stockholders' Representative (taken in its capacity as Stockholders' Representative), including an amendment, extension or waiver of this Agreement pursuant to Section 10.14, shall constitute a unanimous decision of the Selling Stockholders and shall be final, binding and conclusive on the Selling Stockholders.

**(b)** At the Closing, the Purchaser will wire to the Stockholders' Representative an amount of $60,000 (the "**Expense Fund**"), which will be used for the purposes of paying directly, or reimbursing the Stockholders' Representative for, any third party expenses pursuant to this Agreement, and which amount, together with any fees paid by the Purchaser at the Closing to the Stockholders' Representative, shall be deducted from the Initial Cash Payment pursuant to Section 1.2(a)(i). The Selling Stockholders will not receive any interest or earnings on the Expense Fund and irrevocably transfer and assign to the Stockholders' Representative any ownership right that they may otherwise have had in any such interest or earnings. The Stockholders' Representative will not be liable for any loss of principal of the Expense Fund other than as a result of its gross negligence, willful misconduct or bad faith. The Stockholders' Representative will hold these funds separate from its corporate funds, will not use these funds for its operating expenses or any other corporate purposes and will not make these funds available to its creditors in the event of bankruptcy. As soon as practicable following the completion of the Stockholders' Representative's responsibilities, or otherwise upon the request of the Selling Stockholders, the Stockholders' Representative shall disburse the balance of the Expense Fund to the Selling Stockholders based on such Selling Stockholders' Pro Rata Percentage. For tax purposes, the Expense Fund shall be treated as having been received and voluntarily set aside by the Selling Stockholders at the time of Closing. The Stockholders' Representative is not acting as a withholding agent or in any similar capacity in connection with the Expense Fund and is not responsible for any tax reporting or withholding with respect thereto.

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The parties hereto have caused this STOCK PURCHASE AGREEMENT to be executed and delivered as of the date first above written.

**The Purchaser:**

**Aclaris Therapeutics Inc.**

By:___/s/ Neal Walker_____
Name:_Neal Walker_____
Title:__President and CEO_____

**The Company:**

**Vixen Pharmaceuticals, Inc.**

By:__/s/Angela M. Christiano _____
Name:__ Angela M. Christiano_____
Title:____President_____

**JAK1, LLC**

By:____/s/ Illegible_____
Name:_Illegible_____
Title:__Manager_____

**JAK2, LLC**

By:___/s/ Illegible_____
Name:_Illegible_____
Title:__Manager_____

**JAK3, LLC**

By:___/s/ Illegible_____
Name:_Illegible_____
Title:__Manager_____

**SHAREHOLDER REPRESENTATIVE SERVICES LLC, solely in its capacity as Stockholders' Representative**

By:___/s/ W. Paul Koenig_____
Name:_W. Paul Koenig_____
Title:__Managing Director_____

**Schedule 1**
**Regulatory Milestone Payments For Patent Products**

For the avoidance of doubt, the following Regulatory Milestone Payments shall be made only with respect to Patent Products, and shall not be owed or paid with respect to any Know-how Products or Additional Products.

**AA Oral Product**: Upon the first occurrence of each of the following Regulatory Milestone events for an AA Oral Product, the Purchaser shall make the following one-time milestone payments to the Selling Stockholders (i.e., each milestone payment will only be paid one time):

| Regulatory Milestone | Amount |
|---|---|
| NDA filing in the United States | $[***] |
| FDA approval of an NDA in the United States | $[***] |
| Regulatory Approval in the European Union | $[***] |
| Regulatory Approval in Japan | $[***] |

**AA Topical Product**: Upon the first occurrence of each of the following Regulatory Milestone events for an AA Topical Product, the Purchaser shall make the following one-time milestone payments to the Selling Stockholders (i.e., each milestone payment will only be paid one time):

| Regulatory Milestone | Amount |
|---|---|
| NDA filing in the United States | $[***] |
| FDA approval of an NDA in the United States | $[***] |
| Regulatory Approval in the European Union | $[***] |
| Regulatory Approval in Japan | $[***] |

**AGA Product**: Upon the first occurrence of each of the following Regulatory Milestone events for an AGA Product, the Purchaser shall make the following one-time milestone payments to the Selling Stockholders (i.e., each milestone payment will only be paid one time):

| Regulatory Milestone | Amount |
|---|---|
| NDA filing in the United States | $[***] |
| FDA approval of an NDA in the United States | $[***] |
| Regulatory Approval in the European Union | $[***] |
| Regulatory Approval in Japan | $[***] |

**Schedule 2**
**Commercial Milestone Payments For Patent Products**

For the avoidance of doubt, the following Commercial Milestone Payments shall be made only with respect to Patent Products and shall not be owed or paid with respect to any Know-how Products or Additional Products.

Upon the first occurrence of each of the following Commercial Milestone events for all Patent Products (on an aggregate, annual worldwide basis), the Purchaser shall make the following milestone payments to the Selling Stockholders (i.e., each milestone payment will only be paid one time):

| Commercial Milestone | Amount |
|---|---|
| Upon achievement of aggregate Annual Net Sales for all Patent Products sold by or on behalf of Purchaser Persons [***] | $[***] |
| Upon achievement of aggregate Annual Net Sales for all Patent Products sold by or on behalf of Purchaser Persons [***] | $[***] |
| Upon achievement of aggregate Annual Net Sales for all Patent Products sold by or on behalf of Purchaser Persons [***] | $[***] |

**Schedule 3**
**Additional Payments for Patent Products and Know-how Products**

**Additional Payments for Patent Products**

During the applicable Additional Purchase Price Terms for all Patent Products, Purchaser shall pay the Selling Stockholders on Annual Net Sales of all such Patent Products in the Territory at the following Additional Payment rates:

| **Patent Product Additional Payment Tiers (each Additional Payment rate shall apply to its respective increment of Net Sales)** | **Amount** |
|---|---|
| Aggregate Annual Net Sales for all Patent Products sold by or on behalf of Purchaser Persons of [***] | [***] |
| Aggregate Annual Net Sales for all Patent Products sold by or on behalf of Purchaser Persons [***] | [***] |
| Aggregate Annual Net Sales for all Patent Products sold by or on behalf of Purchaser Persons [***] | [***] |

The Additional Payment rates set forth above for Patent Products shall be subject to the adjustments set forth in Section 1.2(a)(vi)(1) and (2), subject to the Patent Floor.

**Additional Payments for Know-how Products**

During the Additional Purchase Price Terms for all Know-how Products and Additional Products, Purchaser shall pay the Selling Stockholders on Annual Net Sales of all such Know-how Products and Additional Products in the Territory at the following Additional Payment rates:

| **Know-how Product Additional Payment Tiers (each Additional Payment rate shall apply to its respective increment of Net Sales)** | **Amount** |
|---|---|
| Aggregate Annual Net Sales for all Know-how Products and Additional Products sold by or on behalf of the Purchaser Persons of [***] | [***] |
| Aggregate Annual Net Sales for all Know-how Products and Additional Products sold by or on behalf of the Purchaser Persons [***] | [***] |
| Aggregate Annual Net Sales for all Know-how Products and Additional Products sold by or on behalf of the Purchaser Persons [***] | [***] |

The Additional Payment rates set forth above for Know-how Products shall be subject to the adjustments set forth in Section 1.2(a)(vi)(1), subject to the Know-how Floor.

**Schedule 4**
**Additional Payments for Additional Products**

During the Additional Purchase Price Terms for all Additional Products and Know-how Products, Purchaser shall pay the Selling Stockholders on Annual Net Sales of such Additional Products and Know-how Products in the Territory at the following Additional Payment rates:

| **Additional Product Additional Payment Tiers**<br>**(each Additional Payment rate shall apply to its respective increment of Net Sales)** | **Amount** |
|---|---|
| Aggregate Annual Net Sales for all Additional Products and Know-how Products sold by or on behalf of the Purchaser Persons of [***] | [***] |
| Aggregate Annual Net Sales for all Additional Products and Know-how Products sold by or on behalf of the Purchaser Persons [***] | [***] |
| Aggregate Annual Net Sales for all Additional Products and Know-how Products sold by or on behalf of the Purchaser Persons [***] | [***] |

The Additional Payment rates set forth above for Additional Products shall be subject to the adjustments set forth in Section 1.2(a)(vi)(1), subject to the Additional Product Floor.

**Schedule 5**
**Selling Stockholders**

| **Name** | **Number of Shares of the Company** | **Pro Rata Percentage** |
|---|---|---|
| JAK1, LLC | [***] | [***] |
| JAK2, LLC | [***] | [***] |
| JAK3, LLC | [***] | [***] |

**EXHIBIT A**

**CERTAIN DEFINITIONS**

For purposes of the Agreement (including this Exhibit A):

**AA Oral Product**. "AA Oral Product" shall mean a Patent Product that is intended for the treatment of alopecia areata in humans and is administered orally.

**AA Topical Product**. "AA Topical Product" shall mean a Patent Product that is intended for the treatment of alopecia areata in humans and is administered topically.

**AA Product**. "AA Product" shall mean either an AA Oral Product or an AA Topical Product.

**Acquisition Transaction**. "Acquisition Transaction" shall mean any transaction involving: (a) the sale or other disposition of all or any portion of the Company's business or assets (other than in the ordinary course of business); (b) the issuance, sale or other disposition of (i) any shares in the capital of the Company, (ii) any option, call, warrant or right (whether or not immediately exercisable) to acquire any capital stock of the Company, or (iii) any security, instrument or obligation that is or may become convertible into or exchangeable for any shares in the capital of the Company; or (c) any merger, consolidation, business combination, share exchange, reorganization or similar transaction involving the Company.

**Additional Product.** "Additional Product" shall mean a "Product" or "Licensed Product" (in each case, as defined in the Rigel License Agreement or the JAKPharm and Key Organics License Agreement) that is not otherwise a Patent Product or Know-how Product hereunder.

**Additional Purchase Price Term**. "Additional Purchase Price Term" shall mean, on a Product-by-Product or Additional Product-by-Additional Product, as the case may be, and country-by-country basis, (a) with respect to a Patent Product, from and after the Closing until the expiration of the last Valid Claim within the Company Patent Rights in such country that Cover such Patent Product; and (b) with respect to a Know-how Product or Additional Product, on a Know-how Product by Know-how Product or Additional Product-by Additional Product and country-by country basis, from and after the Closing until ten (10) years after the First Commercial Sale of such Know-how Product or Additional Product in such country.

**Affiliates**. "Affiliates" shall mean as to any Person, a Person that directly, indirectly or through one or more direct or indirect intermediaries, controls or is controlled by or is under common control with the person specified. For the purposes of this definition, "control" (including, correlative terms), as used with respect to any Person, shall mean the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities, by contract or otherwise. For purposes of this Agreement, the following entities shall not be considered "Affiliates" of the Purchaser: [***]

**AGA Product**. "AGA Product" shall mean a Patent Product that is intended for the treatment of androgenetic alopecia in humans, by any route of administration.

**Agreement**. "Agreement" shall mean the Stock Purchase Agreement to which this **Exhibit A** is attached (including the exhibits and schedules thereto), as it may be amended from time to time.

**Annual Net Sales**. "Annual Net Sales" shall mean, with respect to a calendar year, aggregate, worldwide Net Sales of a Product or Additional Product by all Purchaser Persons in such calendar year; provided that, with respect to Net Sales of a Product or Additional Product in a country, Net Sales of such Product or Additional Product in such country shall only be included in Annual Net Sales during the applicable Additional Purchase Price Term for such Product or Additional Product in such country.

**Benefit Plan**. "Benefit Plan" shall mean any benefit plan or other similar plan maintained by the Company or pursuant to any Legal Requirements for the benefit of employees of the Company.

**Code**. "Code" shall mean the Internal Revenue Code of 1986.

**Combination Product**. "Combination Product" shall mean a combination of products sold together as a single product for a single invoice price that includes at least one Product or Additional Product and one or more additional therapeutically active ingredients (whether coformulated or copackaged) which are not Products or Additional Product. Pharmaceutical dosage form vehicles, adjuvants, and excipients shall not be deemed to be "therapeutically active ingredients", except in the case where such vehicle, adjuvant, or excipient is recognized by the FDA as an active ingredient in accordance with 21 CFR 210.3(b)(7). For the avoidance of doubt, it is understood and agreed that the Company Patent Rights include "method of use" claim(s) and that a "Product" or "Additional Product" may also be covered by "composition of matter" patent claim(s); it is not the intent that the use of method of use claim(s) within Company Patent Rights in combination with use of composition of matter claim(s) results in a Product or Additional Product being classified as a Combination Product.

**Commercialize**. "Commercialize" shall mean any activities directed to obtaining pricing and/or reimbursement approvals, marketing, promoting, distributing, importing, offering to sell and/or selling a Product or Additional Product (including establishing the price for such Product or Additional Product), after Regulatory Approval for such Product or Additional Product has been obtained in a particular country.

**Commercially Reasonable Efforts**. "Commercially Reasonable Efforts" shall mean diligent and timely efforts that are consistent with the efforts and resources normally used by similarly situated pharmaceutical companies relating to the Development and Commercialization of products that (a) have scientific attributes similar to those of the relevant Product or Additional Product; (b) are at a similar stage in their Development, Commercialization or product life as the relevant Product or Additional Product; (c) have commercial and market potential similar to the relevant Product or Additional Product, taking into account issues of intellectual property scope,

subject matter and coverage, safety and efficacy, product profile, competitiveness with respect to other products in the marketplace, proprietary position and profitability (including pricing and reimbursement status achieved or likely to be achieved and Back-End Payments payable to the Selling Stockholders pursuant to this Agreement); and (d) are solely owned by it or to which it has exclusive rights.

**Company Contract**. "Company Contract" shall mean any Contract: (a) to which the Company is a party; (b) by which the Company or any of its assets is or may become bound or under which the Company has or may become subject to any obligation; or (c) under which the Company has or may acquire any right or interest.

**Company Know-how**. "Company Know-how" shall mean any Know-how solely owned by or licensed to the Company as set forth on **Exhibit B**. Company Know-how excludes Company Patent Rights.

**Company Material Adverse Change**. "Company Material Adverse Change" shall mean a material adverse effect on (a) the business, assets, condition (financial or otherwise), results of operations or prospects of the Company and its subsidiaries, taken as a whole, (b) the ability of the Company or the Selling Stockholders to perform their obligations under this Agreement or (c) the ability of the Company or the Selling Stockholders to, or the timing when the Company or the Selling Stockholders may, consummate the Transactions; provided that the foregoing shall not include any change, event, circumstance, condition or effect (individually or in the aggregate with respect to the Company and its subsidiaries) primarily resulting from: (i) a general deterioration in the economy or in the economic conditions prevalent in the industry in which the Company and its subsidiaries operate, as long as the Company is not disproportionately impacted; (ii) any change in applicable law, or the interpretation thereof, as long as the Company is not disproportionately impacted; (iii) any force majeure event, disruptions of suppliers, acts of terrorism, wars, acts of God and the like, or (iv) any developments, transactions, events or occurrences involving the Purchaser.

**Company Patent Rights**. "Company Patent Rights" shall mean (a) the patents and patent applications listed in **Exhibit C**; (b) any issued patent or patent application that claims priority to and/or is a divisional, continuation, reissue, renewal, reexamination, substitution or extension of any patent application identified in (a); (c) any patents issuing on any patent application identified in (a) or (b), including any reissues, renewals, reexaminations, substitutions or extensions thereof; (d) any and all claims of a continuation-in-part application that claim priority to the United States patent applications listed in **Exhibit C**, but only where such claims are directed to inventions disclosed in the manner provided in the first paragraph of 35 U.S.C. Section 112 in the United States patent applications listed in **Exhibit C**, and such claims in any patents issuing from such continuation-in-part applications; and (e) any foreign counterpart (including PCTs) of any issued patent or patent application identified in (a), (b) , (c) or (d).

**Company Persons**. "Company Persons" shall mean the Company, the Selling Stockholders and the Seller Principals.

**Compound**. "Compound" shall mean a Janus-associated Kinase compound.

**Consent**. "Consent" shall mean any approval, consent, ratification, permission, waiver or authorization (including any Governmental Authorization).

**Contract**. "Contract" shall mean any written or oral agreement, contract, understanding, arrangement, instrument, note, guaranty, indemnity, representation, warranty, deed, assignment, power of attorney, certificate, purchase order, work order, insurance policy, benefit plan, commitment, covenant, assurance or undertaking of any nature.

**Contravention Event**. "Contravention Event" shall mean any event which would: (a) contravene, conflict with or result in a violation of (i) any of the provisions of the Company's charter documents, or (ii) any resolution adopted by the Company's stockholders, the Company's board of directors or any committee of the Company's board of directors; (b) contravene, conflict with or result in a violation of, or give any Governmental Body or other Person the right to challenge any of the Transactions or to exercise any remedy or obtain any relief under, any Legal Requirement or any Order to which the Company or the Selling Stockholders, or any of the assets owned or used by the Company, is subject; (c) cause the Company, the Purchaser or any Affiliate of the Purchaser to become subject to, or to become liable for the payment of, any Tax; (d) cause any of the assets owned or used by the Company to be reassessed or revalued by any taxing authority or other Governmental Body; (e) contravene, conflict with or result in a violation of any of the terms or requirements of, or give any Governmental Body the right to revoke, withdraw, suspend, cancel, terminate or modify, any Governmental Authorization that is held by the Company or any of its employees or that otherwise relates to the Company's business or to any of the assets owned or used by the Company; (f) contravene, conflict with or result in a violation or breach of, or result in a default under, any provision of any Company Contract; (g) give any Person the right to (i) declare a default or exercise any remedy under any Company Contract, (ii) accelerate the maturity or performance of any Company Contract, or (iii) cancel, terminate or modify any Company Contract; (h) contravene, conflict with or result in a violation or breach of or a default under any provision of, or give any Person the right to declare a default under, any Contract to which the Selling Stockholders are a party or by which the Selling Stockholders are bound; or (i) result in the imposition or creation of any Encumbrance upon or with respect to any asset owned or used by the Company.

**Cover**. "Cover" shall mean, with respect to a Patent Product that, but for a license granted to a Person under a Valid Claim included in the Company Patent Rights under which such license is granted, the Development and/or Commercialization of such Product by such Person as provided hereunder would infringe such Valid Claim (assuming, for such a purpose, that patent applications otherwise constituting Valid Claims have issued).

**Damages**. "Damages" shall mean any loss, damage, injury, Liability, claim, demand, settlement, judgment, award, fine, penalty, Tax, fee (including any legal fee, expert fee, accounting fee or advisory fee), charge, cost (including any cost of investigation) or expense of any nature.

**Develop**. "Develop" shall mean non-clinical (including pre-clinical) and clinical drug development activities and related research, including: (a) assay development, (b) pharmacology studies, (c) absorption, distribution, metabolism, elimination (ADME) studies, (d) toxicology studies, (e) statistical analysis and report writing, (f) test method development and stability testing,

(g) process development, (h) formulation development, (i) delivery system development, (j) molecular pathology and biomarker development, (k) quality assurance and quality control development, (l) compliance related monitoring and activities (including biometry, data management, drug safety, integrated analysis, and health and economic research), (m) manufacture of drug supply (in both active pharmaceutical ingredient and finished product form) for use in both pre-clinical activities and clinical trials, (n) clinical trials for the purpose of obtaining or maintaining Regulatory Approval (including post-marketing and market expansion studies, (o) safety related studies and risk management programs, (p) support of investigator-initiated clinical trials, (q) new product planning activities, and (r) regulatory affairs activities related to all of the foregoing.

**Disclosure Schedule**. "Disclosure Schedule" shall mean the schedule (dated as of the date of the Agreement) delivered to the Purchaser by the Selling Stockholders, a copy of which is attached to the Agreement and incorporated in the Agreement by reference.

**EMA**. "EMA" shall mean the European Medicines Agency, or any successor agency thereto.

**Encumbrance**. "Encumbrance" shall mean any lien, pledge, hypothecation, charge, mortgage, security interest, encumbrance, equity, trust, equitable interest, claim, preference, right of possession, lease, tenancy, license, encroachment, infringement, interference, Order, proxy, option, right of first refusal, preemptive right, community property interest, legend, defect, impediment, exception, reservation, limitation, impairment, imperfection of title, any restriction on the voting of any security any restriction on the transfer of any security or other asset (other than any restriction on transfer arising under the Securities Act and applicable state securities laws), any restriction on the receipt of any income derived from any asset, any restriction on the use of any asset, and any restriction on the possession, exercise or transfer of any other attribute of ownership of any asset.

**Entity**. "Entity" shall mean any corporation (including any non-profit corporation), general partnership, limited partnership, limited liability partnership, joint venture, estate, trust, cooperative, foundation, society, political party, union, company (including any limited liability company or joint stock company), firm or other enterprise, association, organization or entity.

**Exchange Act**. "Exchange Act" shall mean Securities Exchange Act of 1934, as amended from time to time.

**FDA**. "FDA" shall mean the U.S. Food and Drug Administration, or any successor agency thereto.

**First Commercial Sale**. "First Commercial Sale" shall mean, with respect to a Product or Additional Product in a country, the first sale of such Product or Additional Product by the Purchaser, its Affiliates or its Sublicensees to a Third Party for use or consumption of such Product or Additional Product in such country where Regulatory Approval of such Product or Additional Product has been obtained or where sale is otherwise permitted by the Governmental Authority of such country. Sale of a Product or Additional Product by a party, its Affiliate or Sublicensee to

such party, an Affiliate thereof or a Sublicensee shall not constitute a First Commercial Sale unless such party, Affiliate or Sublicensee are the end user of the Product or Additional Product. Further, sales of a Product or Additional Product on a "treatment IND basis", "named patient" basis, "compassionate use" basis, for use as samples, for use in clinical trials or for research purposes shall not constitute a First Commercial Sale.

**Generic Product**. "Generic Product" shall mean, with respect to a particular Patent Product in a country, a pharmaceutical product that (a) contains the same active ingredient(s) as such Patent Product, (b) was approved for use in such country, whether for use as monotherapy or for use in combination with any product or compound, on an expedited or abbreviated basis in a manner that relied on or incorporated data submitted by a Purchaser Person in connection with such approval, and (c) is sold in such country by a Third Party (other than a Sublicensee) who did not purchase such product in a chain of distribution that included a party or its Affiliate.

**Governmental Authorization**. "Governmental Authorization" shall mean any: (a) permit, license, certificate, approval, consent, ratification, permission, clearance, waiver, certification, designation, rating, registration, qualification or authorization that is, has been or may in the future be issued, granted, given or otherwise made available by or under the authority of any Governmental Body or pursuant to any Legal Requirement; or (b) right under any Contract with any Governmental Body.

**Governmental Body**. "Governmental Body" shall mean any: (a) nation, principality, state, commonwealth, province, territory, county, municipality, district or other jurisdiction of any nature; (b) federal, state, local, municipal, foreign or other government; (c) governmental or quasi-governmental authority of any nature (including any governmental division, subdivision, department, agency, bureau, branch, office, commission, council, board, instrumentality, officer, official, representative, organization, unit, body or Entity and any court or other tribunal); (d) multi-national organization or body; or (e) individual, Entity or body exercising, or entitled to exercise, any executive, legislative, judicial, administrative, regulatory, police, military or taxing authority or power of any nature.

**Know-how**. "Know-how" shall mean any tangible or intangible know-how, expertise, discoveries, inventions, information, data or materials, including ideas, concepts, formulas, methods, procedures, designs, technologies, compositions, plans, applications, preclinical and clinical data, technical data, samples, chemical compounds and biological materials and all derivatives, modifications and improvements thereof and Regulatory Approvals and filings therefor, which in each case are non-public or proprietary and are related to Compounds; provided, however, that Know-how excludes Patent Rights.

**Know-how Product**. "Know-how Product" shall mean any pharmaceutical product that comprises or incorporates a Compound as an active pharmaceutical ingredient alone or in combination with one or more active agents, the Development, Manufacture or Commercialization of which involves the use of or incorporation, in whole or in part, of any Company Know-how and that is not a Patent Product.

**Knowledge**. "Knowledge" shall mean, with respect to the Company or Company Persons, as applicable, the actual knowledge of any Seller Principals, the members of the Selling Stockholders or any other executive officer of the Company or the Selling Stockholders.

**Legal Requirement**. "Legal Requirement" shall mean any federal, state, local, municipal, foreign or other law, statute, legislation, constitution, principle of common law, resolution, ordinance, code, edict, decree, proclamation, treaty, convention, rule, regulation, ruling, directive, pronouncement, requirement, specification, determination, decision, opinion or interpretation that is, has been or may in the future be issued, enacted, adopted, passed, approved, promulgated, made, implemented or otherwise put into effect by or under the authority of any Governmental Body.

**Liability**. "Liability" shall mean any debt, obligation, duty or liability of any nature (including any unknown, undisclosed, unmatured, unaccrued, unasserted, contingent, indirect, conditional, implied, vicarious, derivative, joint, several or secondary liability), regardless of whether such debt, obligation, duty or liability would be required to be disclosed on a balance sheet prepared in accordance with generally accepted accounting principles and regardless of whether such debt, obligation, duty or liability is immediately due and payable.

**License Agreement**. "License Agreement" shall mean that certain Exclusive License Agreement, by and between the Company and the Trustees of Columbia University in the City of New York (the "***Institution***"), dated as of December 31, 2015.

**Manufacture**. "Manufacture" shall mean all activities related to the manufacturing of any Product or Additional Product, including test method development and stability testing, formulation, process development, manufacturing scale-up, manufacturing for use in non-clinical and clinical studies, manufacturing for commercial sale, packaging, release of product, quality assurance/quality control development, quality control testing (including in-process release and stability testing) and release of product or any component or ingredient thereof, and regulatory activities related to all of the foregoing.

**Material Change**. "Material Change," shall mean, with regard to the Company: (a) any material adverse change in the Company's business, condition, assets, liabilities, operations, financial performance, net income or prospects (or in any aspect or portion thereof); (b) any loss, damage or destruction to, or any interruption in the use of, any of the Company's material assets (whether or not covered by insurance); (c) any action by the Company to (i) declare, accrue, set aside or pay any dividend or any other distribution in respect of any shares of capital stock, or (ii) repurchase, redemption or other reacquisition of any shares of capital stock or other securities; (d) any sale or other issuance of any shares of capital stock or any other securities; (e) any amendment of the Company's charter documents; (f) any Acquisition Transaction, recapitalization, reclassification of shares, stock split, reverse stock split or similar transaction; (g) any purchase or other acquisition of any asset from any other Person, except for supplies acquired in the ordinary course of business, or any lease or license of any asset from any other Person except for leases of office equipment and similar items involving less than $10,000 in the aggregate; (h) any capital expenditures; (i) any sale or other transfer, and any lease or license, of any asset to any other Person except for products sold from inventory in the ordinary course of business; (j) any writing off as uncollectible, or establishment of any extraordinary reserve with respect to, any account receivable

or other indebtedness; (k) any pledge or hypothecation of any assets or the subjection of any assets to any Encumbrance; (l) any loan or advance to any other Person except for the extension of credit to customers in the ordinary course of business; (m) any (i) establishment or adoption of any Benefit Plan for the Company's employees, or (ii) payment of any bonus or any profit-sharing or similar payment to, or material increase in the per annum wages, salaries, commission rate, fringe benefits or other compensation or remuneration payable to, any directors, officers or employees; (n) any entering into of any material Contract; (o) any amendment or termination of any material Contract by which the Company or any of the assets owned or used by the Company, is or was bound, or under which the Company has or had any rights or interest, has been amended or terminated; (p) any incurrence or assumption by the Company of, and any other event as a result of which the Company has become subject to, any Liability, other than accounts payable (of the type required to be reflected as current liabilities in the "liabilities" column of a balance sheet prepared in accordance with GAAP) incurred by the Company in the ordinary course of business; (q) any discharge by the Company of any Encumbrance or discharge or payment of any indebtedness or other Liability, except for Liabilities disclosed in Part 2.6 of the Disclosure Schedule and accounts payable that have been incurred by the Company in the ordinary course of business or pursuant to a Company Contract, and (ii) have been discharged or paid in the ordinary course of business; (r) any forgiveness by the Company of any debt or other release or waiver of any right or claim; (s) any change in any respect in any of the Company's methods of accounting or accounting practices; (t) any entry by the Company into any transaction or taking of any other action outside the ordinary course of business; and (u) any agreement, commitment or offer by the Company (in writing or otherwise), and any attempt, to take any of the actions referred to in any of the clauses above.

**NDA**. "NDA" shall mean a New Drug Application filed with the FDA.

**Net Sales**. "Net Sales" shall mean with respect to a particular Product or Additional Product in a particular period, the gross amounts invoiced by the Purchaser Persons on sales or other dispositions (excluding sales or dispositions for use in clinical trials or other scientific testing, in either case for which no Purchaser Person receives cash consideration and excluding transfers or sales between or among Purchaser Persons intended for resale to a Third Party) of such Product or Additional Product to unrelated Third Parties during such period in the Territory, less the following deductions: (i) customary trade, quantity or cash discounts, and other adjustments, which includes those granted on account of rebates, price adjustments, billing errors, recalls, returns, and chargebacks, all of which are actually allowed and taken directly with respect to such sales or other dispositions; (ii) tariffs, duties, excise, value added taxes, sales taxes or other taxes or governmental charges imposed upon and paid directly with respect to the delivery, sale, turnover or use of the Product or Additional Product and included and separately stated in the applicable invoice (excluding national, state, or local taxes based on income); (iii) allowances for amounts repaid or credited by reason of rejections, defects, recalls or returns or because of reasonable and customary chargebacks, refunds, coupons, patient co-pay savings cards or rebates; (iv) freight, insurance, and other transportation costs included in and separately stated in the applicable invoices and actually paid by a Third Party; (v) non-affiliated broker's or agents' commissions actually allowed and taken (not including, for the avoidance of doubt, the internal sales force of a Purchaser Person); (vi) uncollectible amounts that have been written off in the accounting records

of the Purchaser Person in accordance with U.S. GAAP, provided that the Purchaser Person has made reasonable efforts to recover such amounts; and (vii) Third Party distributor fees. The intent of this definition of Net Sales is to allow the Selling Stockholders to derive an Additional Payment on the end sale of a Product or Additional Product by a Purchaser Person to the first Third Party.

**Order**. "Order" shall mean any: (a) order, judgment, injunction, edict, decree, ruling, pronouncement, determination, decision, opinion, verdict, sentence, subpoena, writ or award that is, has been or may in the future be issued, made, entered, rendered or otherwise put into effect by or under the authority of any court, administrative agency or other Governmental Body or any arbitrator or arbitration panel; or (b) Contract with any Governmental Body that is, has been or may in the future be entered into in connection with any Proceeding.

**Patent Expenses**. "Patent Expenses" shall mean actual, documented, reasonable out-of-pocket expenses (including reasonable attorneys' fees, disbursements to agents in foreign jurisdictions, and government filing fees and annuity fees incurred by Purchaser in connection with the preparation, filing, prosecution and maintenance of Patent Rights.

**Patent Product**. "Patent Product" shall mean any pharmaceutical product that comprises or incorporates a Compound as an active pharmaceutical ingredient alone or in combination with one or more active agents, the Development or Commercialization of which is Covered by a Valid Claim within the Company Patent Rights.

**Patent Rights**. "Patent Rights" shall mean a patent or patent application anywhere in the Territory including (a) all pending applications for patents (including all U.S. and foreign patent applications), including but not limited to, provisionals, divisionals, continued prosecution applications, substitution applications, continuations, and continuations-in-part of any of the foregoing, and all domestic and foreign counterparts of any of the foregoing and patents issuing therefrom and any applications claiming priority thereto and (b) all U.S. and foreign patents (including but not limited to utility patents, utility models and utility model applications, and certificates of invention), design patents or registered industrial designs and design applications or applications for registration of industrial designs, together with any and all substitutions, extensions and term restorations (including but not limited to supplementary protection certificates), registrations, confirmations, re-examinations, reissues, renewals, patents of addition, and similar rights and foreign counterparts thereof.

**Person**. "Person" shall mean any individual, Entity or Governmental Body.

**Phase I Clinical Trial**. "Phase I Clinical Trial" shall mean a human clinical trial, the principal purpose of which is preliminary determination of safety in healthy individuals or patients as described in 21 C.F.R. §312.21, or similar clinical study in a country or group of countries other than the United States.

**Phase II Clinical Trial**. "Phase II Clinical Trial" shall mean a human clinical trial, for which the primary endpoints include a determination of dose ranges and/or a preliminary determination of efficacy in patients being studied as described in 21 C.F.R. §312.21, or similar clinical study in a country or group of countries other than the United States.

**Phase III Clinical Trial**. "Phase III Clinical Trial" shall mean a human clinical trial prospectively designed to be a clinical trial upon which submission of a New Drug Application (or its equivalent outside the United States) and Regulatory Approval of a product by the FDA (or its equivalent outside the U.S.) is based.

**Proceeding**. "Proceeding" shall mean any action, suit, litigation, arbitration, proceeding (including any civil, criminal, administrative, investigative or appellate proceeding and any informal proceeding), prosecution, contest, hearing, inquiry, inquest, audit, examination or investigation that is, has been or may in the future be commenced, brought, conducted or heard by or before, or that otherwise has involved or may involve, any Governmental Body or any arbitrator or arbitration panel.

**Product**. "Product" shall mean any Patent Product or Know-how Product.

**Proprietary Assets**. "Proprietary Assets" shall mean (a) all fictional business names, trading names, registered and unregistered trademarks, service marks, and applications; (b) all patents, patent applications, and inventions and discoveries that may be patentable and Patent Rights; (c) all copyrights in both published works and unpublished works; (d) all rights in mask works; and (e) all Know-how, trade secrets, confidential information, customer lists, software, technical information, data, process technology, plans, drawings, and blue prints owned, used, or licensed by the Company as licensee or licensor.

**Purchaser Person**. "Purchaser Person" shall mean any one or more of (a) the Company, the Purchaser or any of their respective Affiliates, (b) any Sublicensee of the Company, the Purchaser or any of their respective Affiliates, or (c) any Designee of any of the foregoing. For the avoidance of doubt, any reference in this Agreement to a Sublicensee shall include all further downstream Sublicensees. For purposes of the foregoing, a "Designee" means any Person that is employed by, under contract to, or in partnership with any other Purchaser Person, wherein such Person is granted the right to Develop and/or Commercialize Products or Additional Products.

**Regulatory Approval**. "Regulatory Approval" shall mean, with respect to a Product, the approval of the applicable Regulatory Authority necessary for the marketing and sale of such Product for a particular indication in a country, excluding separate pricing and/or reimbursement approvals that may be required.

**Regulatory Authority**. "Regulatory Authority" shall mean a federal, national, multinational, state, provincial or local regulatory agency, department, bureau or other governmental entity with authority over Development and/or Commercialization of a pharmaceutical product in a country or territory, including the FDA and EMA.

**Related Party**. Each of the following shall be deemed to be a "Related Party": (a) the Selling Stockholders; (b) the Seller Principals, (c) each individual who is, or who has at any time been, a member, a shareholder, an officer or director of or investor in the Company or Selling Stockholders; (d) each member of the immediate family (i.e., spouse, parent, child) of each of the individuals referred to in clauses "(a)", (b) and "(c)" above; and (e) any Entity (other than the Company) in which any one of the individuals referred to in clauses "(a)", "(b)" "(c)" and "(d)"

above holds (or in which more than one of such individuals collectively hold), beneficially or otherwise, a material voting, proprietary or equity interest.

**Representatives**. "Representatives" shall mean officers, directors, employees, agents, attorneys, accountants, advisors and representatives.

**SEC**. "SEC" shall mean the Securities and Exchange Commission.

**Securities Act**. "Securities Act" shall mean the Securities Act of 1933, as amended from time to time.

**Seller Principal.** "Seller Principal" shall mean each of [***].

**Sublicense Consideration**. "Sublicense Consideration" shall mean all consideration, in whatever form, actually received by any Purchaser Person from a Sublicensee in return for the grant of a sublicense of any of the Purchaser's rights with respect to Company Patent Rights and/or Company Know-how, excluding consideration in the form of: (a) royalties received by a Purchaser Person and calculated wholly as a function of a sale of a unit of the Product if the Net Sales of such unit of such Product are subject to the Additional Payment obligations herein; (b) payments or reimbursements for the Purchaser's documented Development activities conducted on behalf of the relevant Sublicensee after the effective date of the sublicense agreement between the Purchaser and the relevant Sublicensee, to the extent directly related to the Product, valued at the actual direct cost of such activities plus reasonable allocation of overhead; (c) payment to a licensor or patent attorney on behalf of the Purchaser, or reimbursement to the Purchaser, of the Purchaser's reasonable Patent Expenses actually incurred or paid, respectively, by the Purchaser in the prosecution and maintenance of Patent Rights in accordance with the terms of the License Agreement, and not otherwise reimbursed; and (d) payments for the purchase of equity in the Purchaser at the fair market value of such equity.

**Sublicensee**. "Sublicensee" shall mean any Third Party that enters into an agreement with the Purchaser or receives a license grant from the Purchaser under the Company Patent Rights to any of the rights granted to the Purchaser under this Agreement including the right to Develop and/or Commercialize a Product. Sublicensee shall not include Third Party service providers who provide contract development or manufacturing services to the Purchaser.

**Tax**. "Tax" shall mean any tax (including any income tax, franchise tax, capital gains tax, estimated tax, gross receipts tax, value-added tax, surtax, excise tax, ad valorem tax, transfer tax, stamp tax, sales tax, use tax, property tax, business tax, occupation tax, inventory tax, occupancy tax, withholding tax or payroll tax), levy, assessment, tariff, impost, imposition, toll, duty (including any customs duty), deficiency or fee, and any related charge or amount (including any fine, penalty or interest), that is, has been or may in the future be (a) imposed, assessed or collected by or under the authority of any Governmental Body, or (b) payable pursuant to any tax-sharing agreement or similar Contract.

**Tax Return**. "Tax Return" shall mean any return (including any information return), report, statement, declaration, estimate, schedule, notice, notification, form, election, certificate or

other document or information that is, has been or may in the future be filed with or submitted to, or required to be filed with or submitted to, any Governmental Body in connection with the determination, assessment, collection or payment of any Tax or in connection with the administration, implementation or enforcement of or compliance with any Legal Requirement relating to any Tax.

**Territory**. "Territory" shall mean all countries of the world.

**Third Party**. "Third Party" shall mean any Person other than the Company, the Purchaser or any Affiliate of the Company or the Purchaser.

**Transactional Agreements**. "Transactional Agreements" shall mean this Stock Purchase Agreement and the other agreements, documents, and certificates entered into or exchanged between the parties as contemplated herein, including the Resignation Letters, the Non-Competition Agreement and the Indemnity Commitment Agreement.

**Transactions**. "Transactions" shall mean (a) the execution and delivery of the respective Transactional Agreements, and (b) all of the transactions contemplated by the respective Transactional Agreements, including: (i) the sale of the Shares by the Selling Stockholders to the Purchaser in accordance with the Agreement; and (ii) the performance by the Company, the Selling Stockholders and the Purchaser of their respective obligations under the Transactional Agreements and the exercise by the Company, the Selling Stockholders and the Purchaser of their respective rights under the Transactional Agreements.

**Valid Claim**. "Valid Claim" shall mean with respect to any country, (i) a claim of an issued, unexpired patent within the Company Patent Rights that has not been revoked or held unenforceable or invalid by a decision of a court or Governmental Body of competent jurisdiction from which no appeal can be taken, or with respect to which an appeal is not taken within the time allowed for appeal, and that has not been disclaimed or admitted to be invalid or unenforceable through reissue, disclaimer or otherwise or (ii) a claim of any pending patent application within the Company Patent Rights that is being prosecuted in good faith towards allowance and (x) is pending as of or after the Effective Date of this Agreement and (y) (a) other than with respect to Newer Applications, is not still pending three (3) years from the Closing Date and (b) with respect to Newer Applications, is not still pending four (4) years from the applicable PCT patent application filing deadline. As used herein, the term "***Newer Applications***" means patent applications [***].

## EXHIBIT B – COMPANY KNOW-HOW

1. Data from preclinical and clinical studies or collections, including but not limited to gene expression, sequencing, genotyping, biomarker, treatment, outcomes, and registry data.

2. Pre-clinical and clinical research tools, including but not limited to models, biomarkers, reference standards, as well as protocols and Know-how relating to the development and use thereof.

3. Protocols and Know-how relating to design and conduct of preclinical and clinical studies, including but not limited to considerations such as natural history of disease, dosing regimen, formulation, subject recruitment, and subject compliance.

4. Protocols and Know-how relating to acquisition, analysis and interpretation of pre-clinical and clinical data, including but not limited to gene expression, sequencing, genotyping, imaging, biomarker, treatment, and other data acquired from study subjects (animal or human).

5. Research data, research results, and other research information contained in unpublished manuscripts and grant applications.

6. Data and Know-how relating to or useful in connection with the following [***]:

[***]

## EXHIBIT C – COMPANY PATENT RIGHTS

| IR | Docket | Patent/Application Title | Patent/Application No. | Filing Date | Status |
|---|---|---|---|---|---|
| [***] | [***] | [***] | [***] | [***] | [***] |

# EXCLUSIVE LICENSE AGREEMENT

This AGREEMENT, effective as of December 31, 2015 (the "Effective Date"), between THE TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK, a New York corporation ("Columbia"), and Vixen Pharmaceuticals, Inc., a Delaware corporation ("Company").

**1. Definitions.**

a. "Affiliate" means, with respect to a person, organization or entity, any person, organization or entity controlling, controlled by or under common control with, such person, organization or entity. For purposes of this definition only, "control" of another person, organization or entity will mean the possession, directly or indirectly, of the power to direct or cause the direction of the activities, management or policies of such person, organization or entity, whether through the ownership of voting securities, by contract or otherwise. Without limiting the foregoing, control will be presumed to exist when a person, organization or entity (a) owns or directly controls fifty percent (50%) or more of the outstanding voting stock or other ownership interest of the other organization or entity or (b) possesses, directly or indirectly, the power to elect or appoint fifty percent (50%) or more of the members of the governing body of the other organization or entity. The parties acknowledge that in the case of certain entities organized under the laws of certain countries outside of the United States, the maximum percentage ownership permitted by law for a foreign investor may be less than fifty percent (50%), and that in such cases such lower percentage will be substituted in the preceding sentence.

b. "Business Day" means any day, other than a Saturday or a Sunday, on which the banks in New York, New York, USA are open for business.

c. "Calendar Quarter" means a period of three (3) consecutive months ending on the last day of March, June, September or December, respectively.

d. "Calendar Year" means a period of time commencing on January 1 and ending on the following December 31.

e. "Challenge" has the meaning set forth in Section 4c.

f. "Combination Product" means a combination of products sold together as a single product for a single invoiced price that includes at least one Licensed Product and one or more additional therapeutically active ingredients (whether coformulated or copackaged) which are not Licensed Products. Pharmaceutical dosage form vehicles, adjuvants, and excipients shall not be deemed to be "therapeutically active ingredients", except in the case where such vehicle, adjuvant, or excipient is recognized by the FDA as an active ingredient in accordance with 21 CFR 210.3(b)(7).

g. "Commercialization" or "Commercialize" means any activities directed to obtaining pricing and/or reimbursement approvals, marketing, promoting, distributing, importing, offering to sell, and/or selling a Licensed Product (including establishing the price for such Licensed Product) after Regulatory Approval for such Licensed Product has been obtained.

h. "Commercially Reasonable Efforts" means with respect to Company's obligations under this Agreement to Develop or Commercialize a Licensed Product, the carrying out of such obligations or tasks with the expenditure of effort and resources consistent with the usual practice of biopharmaceutical companies of similar size as Company to Develop and Commercialize a similarly situated pharmaceutical compound or product owned by them or to which they have rights, that is at a similar stage of Development or Commercialization, and taking into account, without limitation and with respect to a given market(s) or country(ies), issues of safety and efficacy, approved labeling, the competitiveness of alternative products (controlled by third parties and not by Company), pricing/reimbursement for the product, the patent and other proprietary position of the product, the likelihood of regulatory approval for the product, and other relevant scientific, technical and commercial factors. For clarity, it is

understood and acknowledged that Commercially Reasonable Efforts in the Development of Licensed Products may include sequential implementation of clinical trials and/or reasonable intervals between clinical trials for data interpretation and clinical program planning and approval.

i. "Cover" , "Covering" or "Covered By" means with respect to a Licensed Product that, but for a license granted under a Valid Claim included in the Patent Rights under which such license is granted, the Development and/or Commercialization and/or other use of such Licensed Product as provided hereunder would infringe a Valid Claim in an issued patent.

j. "Designee" means a corporation or other entity that is employed by, under contract to, or in partnership with (i) Company, (ii) a Sublicensee, (iii) an Affiliate of Company, or (iv) an Affiliate of a Sublicensee, wherein such corporation or other entity is granted the right to make, use, sell, promote, distribute, market, import, and/or export Licensed Products in the Territory.

k. "Develop" or "Development" means all activities that relate to (a) obtaining, maintaining or expanding regulatory approval of a Licensed Product and supporting appropriate usage for such Licensed Product, for one or more indications, and/or (b) developing the process for the manufacture of clinical and commercial quantities of Licensed Product. This includes: (i) research, pre-clinical and non-clinical testing, toxicology, and clinical trials; (ii) preparation, submission, review, and development of data or information and regulatory materials for the purpose of submission to a Governmental Authority to obtain, maintain and/or expand regulatory approval of a Licensed Product (including contacts with regulatory authorities), and the obtaining of outside counsel regulatory legal services related thereto; and (iii) manufacturing process development and scale-up, bulk production and fill/finish work associated with the supply of Licensed Product for pre-clinical, non-clinical and clinical studies, and related quality assurance technical support activities. When used as a verb, "Develop" means to engage in Development.

l. "EMA" means the European Medicines Agency, or any successor agency thereto.

m. "FDA" means the U.S. Food and Drug Administration, or any successor agency thereto.

n. "Field" shall mean all any and all uses and applications.

o. "First Commercial Sale" means, with respect to a Licensed Product in a country in the Territory, the first sale of such Licensed Product by or on behalf of Company, its Affiliates or its Sublicensees to a Third Party for use or consumption of such Licensed Product in such country where Regulatory Approval of such Licensed Product has been obtained or where sale is otherwise permitted by the Governmental Authority for such country, excluding, however, any sale or distribution of such Licensed Product for use in a clinical study.

p. "Governmental Authority" means any multinational, federal, state, county, local, municipal or other entity, office, commission, bureau, agency, political subdivision, instrumentality, branch, department, authority, board, court, arbitral or other tribunal, official or officer, exercising executive, judicial, legislative, police, regulatory, administrative or taxing authority or functions of any nature pertaining to government.

q. "Know-How" shall mean any know-how, technical and other information, documents, studies, results and data developed by Columbia prior to the Effective Date by Angela Christiano, Ph.D., Raphael Clynes, M.D., Ph.D. (the "Investigator(s)"), or an individual under the direction of Investigator(s) and provided to or received by Company, which know-how, technical and other information, documents, studies, results and data are necessary or useful for the discovery, development, manufacture, use, sale, offering for sale, importation, exportation, distribution, rental or lease of a Licensed Product, including, without limitation, any know-how, technical and other information, documents, studies, results and data that is (i) disclosed in any Patent Rights, (ii) relates to the use of Janus kinase (JAK) inhibitors for alopecia areata, androgenetic alopecia, and/or other inflammatory skin diseases, or (iii) any reports or disclosures concerning research or inventions provided or disclosed to, or otherwise received by, Company. Know-How shall include, but is not limited to, the know-how, technical and other information, documents, studies, results and data described in Exhibit B hereto. Columbia and the Company agree to negotiate in good faith

to add Exhibit B as an amendment promptly within seven (7) days after the Effective Date. Company acknowledges that Know-How is necessary for the Development and Commercialization of Licensed Products and, as such, Licensed Products will necessarily incorporate in whole or in part, Know-How. The parties may include know-how, technical and other information, documents, studies, results and data developed by or under the direction of the Investigator(s) after the Effective Date by amending Exhibit B to include such know-how, technical and other information, documents, studies, results and data.

r. "Know-How Product" means any product or service (or component thereof), other than a Patent Product, the discovery, development, manufacture, use, sale, offering for sale, importation, exportation, distribution, rental or lease of which involves the use or incorporation, in whole or in part, of Know-How.

s. "Law" or "Laws" means each provision of any then-current multinational, federal, national, state, county, local, municipal or foreign law, statute, ordinance, order, writ, code, rule or regulation, promulgated or issued by any Governmental Authority, as well as with respect to either party any binding judgments, decrees, stipulations, injunctions, determinations, awards or agreements issued by or entered into by such party with any Governmental Authority.

t. "Licensed Product" means any Patent Product or Know-How Product.

u. "Net Sales" means, with respect to a particular Licensed Product in a particular period, the gross amounts invoiced by Company, Sublicensees, Designees, and/or their respective Affiliates on sales or other dispositions (excluding sales or dispositions for use in clinical trials or other scientific testing, in either case for which Company, Sublicensees, Designees, or their respective Affiliates receive no cash consideration and excluding transfers or sales between or among Company, Sublicensees, Designees, or their Affiliates intended for resale to a Third Party) of such Licensed Product to unrelated Third Party end-users during such period in the Field in the Territory, less the following deductions:

(i) customary trade, quantity or cash discounts, and other adjustments, which includes those granted on account of rebates, price adjustments, billing errors, recalls, returns, and chargebacks, all of which are actually allowed and taken directly with respect to such sales or other dispositions; (ii) tariffs, duties, excise, value added taxes, sales taxes or other taxes or governmental charges imposed upon and paid directly with respect to the delivery, sale, turnover or use of the Licensed Product and included and separately stated in the applicable invoice (excluding national, state, or local taxes based on income); (iii) allowances for amounts repaid or credited by reason of rejections, defects, recalls or returns or because of reasonable and customary chargebacks, refunds, coupons, patient co-pay savings cards or rebates; (iv) freight, insurance, and other transportation costs included in and separately stated in the applicable invoices and actually paid by a Third Party; (v) non-affiliated broker's or agents' commissions actually allowed and taken (not including, for the avoidance of doubt, the internal sales force of Company, Sublicensees, Designees or their Affiliates); and (vi) uncollectible amounts that have been written off in the accounting records of the Company in accordance with U.S. GAAP, provided that Company has made reasonable efforts to recover such amounts. The intent of this definition of Net Sales is to allow Columbia to derive a royalty on the end sale of a Licensed Product by Company, its Affiliates or Sublicensees to the first Third Party.

Net Sales of any Combination Product for the purpose of calculating milestones or royalties due under this Agreement shall be determined on a country-by-country basis for a given accounting period as follows: first, the actual Net Sales of such Combination Product (using the above provisions) shall be determined, and then: such Net Sales amount for the Combination Product shall be multiplied by the fraction A/(A+B), where "A" is the gross selling price in such country of a product containing only the applicable Licensed Product (the "Licensed Component"), if sold separately for the same dosage as contained in the Combination Product, and "B" is the gross selling price in such country of any other active ingredients in the Combination Product (the "Unlicensed Component") if sold separately for the same dosage as contained in the Combination Product. All gross selling prices of the elements of such product shall be calculated as the average gross selling price of the said elements during the applicable accounting period for which the Net Sales are being calculated. In the event that no such separate sales are made of the Licensed Component and/or the Unlicensed Components during the applicable accounting period, then Net Sales of the Combination Product shall be determined by multiplying the Net Sales of

the Combination Product by a fraction, the numerator of which is the fully allocated production cost of the Licensed Component and the denominator of which is the sum of the fully allocated production costs of the Licensed Component and the Unlicensed Components. Such fully allocated costs shall be determined by Company's standard accounting procedures, which procedures must conform to standard cost accounting procedures.

v. "Patent Expenses" has the meaning set forth in Section 11b.

w. "Patent Product" means any product or service (or component thereof), alone or in combination with one or more other active ingredients (or component thereof), the discovery, development, manufacture, use, sale, offering for sale, importation, exportation or distribution of is Covered By a Valid Claim within the Patent Rights.

x. "Patent Rights" means (a) the patents and patent applications listed in Exhibit A; (b) any issued patent or patent application that claims priority to and/or is a divisional, continuation, reissue, renewal, reexamination, substitution or extension of any patent application identified in (a); (c) any patents issuing on any patent application identified in (a) or (b), including any reissues, renewals, reexaminations, substitutions or extensions thereof; (d) any and all claims of a continuation-in-part application that claim priority to the United States patent applications listed in Exhibit A, but only where such claims are directed to inventions disclosed in the manner provided in the first paragraph of 35 U.S.C. Section 112 in the United States patent applications listed in Exhibit A, and such claims in any patents issuing from such continuation-in-part applications; and (e) any foreign counterpart (including PCTs) of any issued patent or patent application identified in (a), (b) , (c) or (d).

y. "Phase I Clinical Trial" means a human clinical trial, the principal purpose of which is preliminary determination of safety in healthy individuals or patients as described in 21 C.F.R. §312.21, or similar clinical study in a country or group of countries other than the United States.

z. "Phase II Clinical Trial" means a human clinical trial, for which the primary endpoints include a determination of dose ranges and/or a preliminary determination of efficacy in patients being studied as described in 21 C.F.R. §312.21, or similar clinical study in a country or group of countries other than the United States.

aa. "Phase III Clinical Trial" means a human clinical trial prospectively designed to be a clinical trial upon which submission of an NDA (or its equivalent outside the U.S.) and Regulatory Approval of a Licensed Product by the FDA (or its equivalent outside the U.S.) is based; regardless of the designation given to such a clinical trial (e.g. Phase IIb, Phase III).

bb. "Prosecution and Maintenance" or "Prosecute and Maintain" means, with regard to a Patent Right, the preparation, filing, prosecution and maintenance of such Patent Right, as well as re-examinations, reissues, appeals, and requests for patent term adjustments and patent term extensions with respect to such Patent Right, together with the initiation or defense of interferences, the initiation or defense of *inter partes* review, oppositions, reexaminations, or any other *ex parte* or *inter partes* administrative and proceedings before patent offices with respect to the particular Patent Right, and any appeals therefrom, including any nullity or revocation proceeding, or any of the foregoing, as applicable. For clarification, "Prosecution and Maintenance" or "Prosecute and Maintain" shall not include any other enforcement actions taken with respect to a Patent Right.

cc. "Payment Report" has the meaning set forth in Section 5a.

dd. "Regulatory Approval" means, with respect to a Licensed Product, the approval of the applicable Regulatory Authority necessary for the marketing and sale of such Licensed Product for a particular indication in a country, excluding separate pricing and/or reimbursement approvals that may be required. Regulatory Approval shall also include any "orphan drug" or similar designation.

ee. "Regulatory Authority" means a federal, national, multinational, state, provincial or local regulatory agency, department, bureau or other governmental entity with authority over the testing, manufacture, use, storage,

import, promotion, marketing or sale of a pharmaceutical product in a country or territory, including the FDA and EMA.

ff. "Royalty Term" has the meaning set forth in Section 4b.

gg. "Sublicensee" shall mean any Third Party that enters into an agreement or arrangement with Company or receives a license grant from Company under the Licensed Patents to any of the rights granted to Company by Columbia under this Agreement, including the right to manufacture, have manufactured, offer for sale, sell, lease, use, practice, import, export, or distribute a Licensed Product (such agreement, arrangement, or license with such entity shall be referred to as a "Sublicense").

hh. "Sublicense Revenue" means all consideration received by Company or any of its Affiliates from a Sublicensee in return for the grant of a Sublicense of any of Company's rights hereunder, excluding consideration in the form of: (i) royalties received by Company and calculated wholly as a function of a sale of a unit of Licensed Product if the Net Sales of such unit of such Licensed Product are subject to the royalty payment obligations herein; (ii) payments or reimbursements for Company's and its Affiliates' documented Development activities conducted on behalf of the relevant Sublicensee after the execution date of the sublicense agreement between Company and the relevant Sublicensee, to the extent directly related to the Licensed Product, valued at the actual direct cost of such activities plus reasonable allocation of overhead, for which Company shall provide a reasonably detailed cost breakdown including the basis for allocation of overhead to such documented Development activities directly related to the Licensed Product; (iv) payment to a licensor or patent attorney on behalf of Company, or reimbursement to Company of Company's reasonable Patent Expenses actually incurred or paid, respectively, by Company in the Prosecution and Maintenance of the Patent Rights in accordance with this Agreement, and not otherwise reimbursed; and (v) payments for the purchase of equity in Company up to the fair market value of such equity (such fair market value as determined by the Board of Directors of Company in good faith). Additionally, if the event giving rise to a milestone payment by a Sublicensee to Company is the same as an event giving rise to a milestone payment by Company to Columbia pursuant to Section 4a(ii) of this Agreement, Company's obligations pursuant to this Agreement shall be to the pay the greater of the milestone payment specified in Section 4a(ii) or the amount calculated pursuant to this definition, but not both.

ii. "Term" has the meaning set forth in Section 16a.

jj. "Territory" means all countries of the world.

kk. "Third Party" means any entity or person other than Columbia, Company, or their respective Affiliates, Designees, and Sublicensees.

ll. "Third Party Infringer" has the meaning set forth in Section 11d.

mm. "United States" or "U.S." means the United States of America and all of its territories and possessions.

nn. "Valid Claim" means a claim of an issued and unexpired patent within the Patent Rights that has not been (i) held permanently revoked, unenforceable, unpatentable or invalid by a decision of a court or governmental body of competent jurisdiction, unappealable or unappealed within the time allowed for appeal, (ii) rendered unenforceable through disclaimer or otherwise, (iii) abandoned or (iv) permanently lost through an interference or opposition proceeding without any right of appeal or review or with respect to the which the time allowed for appeal has lapsed.

**2. <u>License Grant</u>.**

a. During the Term of this Agreement, Columbia grants to the Company, upon and subject to all the terms and conditions of this Agreement (including Section 3 hereof) (i) an exclusive, worldwide, irrevocable license under the Patent Rights, and (ii) a non-exclusive, worldwide, irrevocable license to the Know-How, in each case to

discover, Develop, manufacture, have made, use, sell, offer to sell, have sold, import, export, and/or distribute, Licensed Products in the Field and throughout the Territory.

b. Columbia grants to Company the right to grant sublicenses, provided that: (i) the Sublicensee agrees to abide by and be subject to all the applicable terms and provisions of this Agreement applicable to Company; (ii) the Sublicensee shall have no further right to grant sublicenses under this Agreement without the prior written consent of Columbia, such consent not to be unreasonably withheld (it being understood that each further Sublicensee shall be subject to the provisions of this Section 2b to the same extent as if it was an initial Sublicensee hereunder); (iii) in the event any Sublicensee (or any entity or Person acting on its behalf) initiates any proceeding or otherwise asserts any claim challenging the validity or enforceability of any Patent Rights in any court, administrative agency or other forum, Company shall, upon written request by Columbia, terminate forthwith the sublicense agreement with such Sublicensee, and the sublicense agreement shall provide for such right of termination by Company; (iv) the sublicense agreement shall provide that, in the event of any inconsistency between the sublicense agreement and this Agreement, this Agreement shall control; (v) the Sublicensee will submit quarterly reports to Columbia consistent with the reporting provision of Section 5a herein; (vi) Company remains fully liable for the performance of its and its Sublicensee's obligations hereunder; (vii) Company provides to Columbia copy of any executed sublicense agreement within thirty (30) days of such execution (redacted as necessary to exclude any Third Party confidential or proprietary information); and (viii) no such sublicense or attempt to obtain a sublicensee shall relieve Company of its obligations under Section 6 hereof to exercise its own Commercially Reasonable Efforts, directly or through an Affiliate and/or sublicense, to discover, Develop and Commercialize Licensed Products, nor relieve Company of its obligations to pay Columbia any and all license fees, royalties and other payments due under the Agreement, including but not limited to under Sections 4, 5 and 11 of the Agreement.

c. All rights and licenses granted by Columbia to Company under this Agreement are subject to (i) any limitations imposed by the terms of any government grant, government contract or government cooperative agreement applicable to the technology that is the subject of this Agreement, and (ii) applicable requirements of 35 U.S.C. Sections 200 et seq., as amended, and implementing regulations and policies. Without limitation of the foregoing, Company agrees that, to the extent required under 35 U.S.C. Section 204, any Licensed Product used, sold, or distributed, by Company, Sublicensees, Designees, and their Affiliates in the United States will be manufactured substantially in the United States. In addition, Company agrees that, to the extent required under 35 U.S.C. Section 202(c)(4), the United States government is granted a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States any Patent Rights throughout the Territory.

d. All rights not specifically granted herein are reserved to Columbia. Except as expressly provided under this Section 2, no right or license is granted (expressly or by implication or estoppel) by Columbia to Company or its Affiliates or Sublicensees under any tangible or intellectual property, materials, patent, patent application, trademark, copyright, trade secret, know-how, technical information, data or other proprietary right.

**3. Reservation of Rights for Research Purposes; Freedom of Publication.**

a. Columbia reserves the right to practice the Patent Rights, to the extent Patent Rights are exclusively licensed hereunder, for academic research and educational purposes in the Field and to permit other entities or individuals to practice such Patent Rights for academic research and educational purposes in the Field. Columbia shall obtain from all entities or individuals who are given permission to practice such Patent Rights an agreement in writing to limit such use to academic research and educational purposes.

b. Company acknowledges that Columbia is dedicated to free scholarly exchange and to public dissemination of the results of its scholarly activities. Subject to Section 3a above, Columbia and its faculty and employees shall have the right to publish, disseminate or otherwise disclose any information relating to its research activities, including Patent Rights and Know-How.

**4. License Fees, Milestone and Royalty Payments, and Royalty Adjustments.**

a. In consideration of the licenses granted under Section 2 of this Agreement, the Company shall pay to Columbia as follows:

(i) License Fee: A non-creditable license fee in the sum of [***]; it being understood and agreed that the $[***] option fee previously paid by Company to Columbia pursuant to the option agreement dated April 10, 2105 between Company and Columbia is fully-creditable against this license fee (and no other initial license fee is due by Company hereunder); and

(ii) Milestone Payments: The one-time milestone payments set forth below upon the achievement of each of the corresponding milestone events for the first Licensed Product to achieve such specific milestone event (i.e., each milestone payment is paid no more than one time in the aggregate):

| Sales Milestone Event | Payment |
|---|---|
| First Commercial Sale of a first Licensed Product | [***] |
| On achievement of annual Net Sales in a Calendar Year [***] | [***] |
| On achievement of annual Net Sales in a Calendar Year [***] | [***] |
| On achievement of annual Net Sales in a Calendar Year [***] | [***] |
| On achievement of annual Net Sales in a Calendar Year [***] | [***] |
| On achievement of annual Net Sales in a Calendar Year [***] | [***] |

Solely for purposes of determining whether a milestone payment is due, “First Commercial Sale” shall not include so-called “treatment IND sales,” “named patient sales” and “compassionate use sales”.

(iii) Earned Royalty: A royalty (A) of [***] on Net Sales of each Patent Product sold by Company, Sublicensees, Designees and/or their respective Affiliates in the Territory with respect to Net Sales achieved during each applicable Calendar Year, and (B) of [***] on Net Sales of each Know-How Product sold by Company, Sublicensees, Designees and/or their respective Affiliates in the Territory with respect to Net Sales achieved during each applicable Calendar Year.

(iv) Sublicense Revenue: On a sublicense-by-sublicense basis:

a) [***] of Sublicense Revenue received by Company if sublicense is executed before enrollment of the first patient in a Phase I Clinical Trial;

b) [***] of Sublicense Revenue received by Company if sublicense is executed on or after enrollment of the first patient in a Phase I Clinical Trial but before enrollment of the first patient in a Phase II Clinical Trial;

c) [***] of Sublicense Revenue received by Company if sublicense is executed on or after enrollment of the first patient in a Phase II Clinical Trial but before enrollment of the first patient in a Phase III Clinical Trial;

d) [***] of Sublicense Revenue received by Company if sublicense is executed on or after enrollment of the first patient in a Phase III Clinical Trial;

(v) Annual License Fee: Starting on the first anniversary of the Effective Date and each anniversary thereafter, Company shall pay Columbia an annual license fee of $10,000 per year if the Patent Expenses due and paid by Columbia for the preceding twelve (12) month period are less than $10,000 for such year. All annual license fees shall be fully creditable to Earned Royalties, milestone payments and Sublicense Revenue due hereunder.

b. Royalty Term. Royalty obligations to Columbia under Section 4a(iii) shall expire on a country-

by-country and Licensed Product-by-Licensed Product basis (i) with respect to Patent Products, upon the later to occur of (A) the expiration date of the last to expire Patent Right containing a Valid Claim Covering the Commercialization or other use, of such Licensed Product in the country of sale, and (B) the expiration of any market exclusivity period granted by a regulatory agency, and (ii) with respect to Know-How Products, ten (10) years after the First Commercial Sale of such Know-How Product in such country (the "Royalty Term") with respect to such Licensed Product and such country.

c. Highest Royalty Due. If a Licensed Product is covered by both the definition of Patent Product and Know-How Product, Columbia shall be entitled to the Patent Product royalty rate on the Licensed Product. Columbia shall not be entitled to more than one royalty payment on the same Licensed Product. To the extent a Licensed Product ceases being a Patent Product, but is still a Know-How Product, Columbia shall be entitled to the Know-How Product royalty rate on the Know-How Product, but only for remainder of the Royalty Term for a Know-How Product.

d. Royalty Rate Adjustment on Challenge; Payment of Costs and Expenses.

(i) In the event Company (or any entity or Person acting on its behalf) initiates any proceeding or otherwise asserts any claim challenging the validity or enforceability of any Patent Right in any court, administrative agency or other forum ("Challenge"), all royalty rates and other payment rates set forth in Sections 4a(iii) and (iv) shall be automatically doubled on and after the date of such Challenge for the remaining Term of this Agreement.

(ii) Company shall pay all costs and expenses incurred by Columbia (including actual attorneys' fees) in connection with defending a Challenge. Columbia may bill Company on a quarterly basis with respect to such costs and expenses, and Company shall make payment within thirty (30) Business Days after receiving an invoice from Columbia.

(iii) In the event at least one Valid Claim of a Patent Right that is subject to a Challenge survives the Challenge by not being found invalid or unenforceable, regardless of whether such Valid Claim is amended as part of the Challenge, all royalty rates and other payment rates set forth in Sections 4a(iii) and (iv) shall be automatically trebled on and after the date of such finding for the remaining Term of this Agreement.

Company acknowledges and agrees that the provisions set forth in this Section 4c reasonably reflect the value derived from the Agreement by Company in the event of a Challenge. In addition, Company acknowledges and agrees that any payments made under this Section 4c shall be nonrefundable and non-recoverable for any reason whatsoever.

e. No Non-Monetary Consideration. Without Columbia's prior written consent, Company, Sublicensees, Designees, and Affiliates of the foregoing, shall not solicit or accept any consideration for the sale of any Licensed Product other than as will be accurately reflected in Net Sales (other than with respect to product samples). Furthermore, Company shall not enter into any transaction with any Affiliate that would circumvent its monetary or other obligations under this Agreement.

f. Importance of Know-How. Company has requested, and Columbia has agreed, to grant certain rights to Know-How. Company desires these rights in order to develop and commercialize the technology licensed hereunder. Because of the importance of Know-How, Company has agreed to pay certain royalties to Columbia on Know-How Products, as specified herein, even if it is not Covered by a Valid Claim within the Patent Rights, in order to obtain rights to Know-How. Company has agreed to these payments because of the commercial value of Know-How, separate and distinct from the commercial value of the Patent Rights. Company acknowledges that it would not have entered into this Agreement without receiving the rights to the Know-How specified in Section 2. Company further acknowledges that licenses to Know-How and each patent and application within the definition of Patents Rights were separately available and that for convenience and because of the preference of Company, the parties executed a combined license to the Patent Rights and Know-How.

**5. Reports and Payments; Taxes.**

a. Within thirty (30) days after the end of each Calendar Quarter of each Calendar Year of this Agreement, Company shall submit to Columbia a written report with respect to the preceding Calendar Quarter (the "Payment Report") stating:

(i) Gross and Net Sales of Licensed Products by Company, Sublicensees, Designees and their respective Affiliates during such Calendar Quarter, together with detailed information sufficient to permit Columbia to verify the accuracy of reported Net Sales, including Licensed Product names, country where manufactured, country where sold, actual selling price, units sold, and an identification of all Valid Claims that any Patent Product is Covered By or any Know-How used or incorporated in the discovery, development, manufacture, use, sale, offering for sale, importation, exportation, distribution, rental or lease of any Know-How Product;

(ii) Amounts accruing to, and amounts received by, Company from its Sublicensees during such Calendar Quarter together with the respective payment reports received by Company from any Sublicensees; and

(iii) A calculation under Section 4 of the amounts due to Columbia, making reference to the applicable subsection thereof.

b. Simultaneously with the submission of each Payment Report, Company shall make payments to Columbia of the amounts due for the Calendar Quarter covered by the Payment Report. Payment shall be by check payable to The Trustees of Columbia University in the City of New York and sent to the following address:

The Trustees of Columbia University in the City of New York
Columbia Technology Ventures
P.O. Box 1394
New York, NY 10008-1394

or to such other address as Columbia may specify by notice hereunder, or if requested by Columbia, by wire transfer of immediately available funds by Company to:

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#####
#####
#####

(This is the bank's address not Columbia University's.
Do not use this address for correspondence to Columbia University.)

Routing #: #####
Swift #: #####
Swift #: #####
Columbia Account #:#####
Beneficiary: #####
Other identifying info: include invoice #, contract #

or to such other bank and account identified by notice to Company by Columbia. Company is required to send the quarterly royalty statement whether or not royalty payments are due.

c. All payments due under this Agreement shall be paid in United States dollars by wire transfer to a bank in the United States designated in writing by Columbia as set forth in Section 5b.

d. Within thirty (30) days after the date of termination or expiration of this Agreement, Company shall pay Columbia any and all amounts that are due pursuant to this Agreement as of the effective date of such

termination or expiration, together with a Payment Report for such payment in accordance with Section 5a hereof, except that such Payment Report shall cover the period from the end of the last Calendar Quarter prior to termination or expiration to the effective date of termination or expiration. Nothing in the foregoing shall be deemed to satisfy any of Company's other obligations under this Agreement upon termination or expiration.

e. For the purposes of calculating any sums due under this Agreement (including the calculation of Net Sales expressed in currencies other than U.S. dollars), Company shall convert any amount expressed in a foreign currency into U.S. dollar equivalents, calculated using the applicable currency conversion rate as published in The Wall Street Journal, Eastern Edition, (a) on the last Business Day of the applicable Calendar Quarter for the Calendar Quarter in which such Net Sales were made, or (b) with respect to any Sublicense Revenue due to Columbia, on the date on which such amount was received by Company (or, if such date is not a Business Day, on the next Business Day thereafter). Any and all loss of exchange value or other expenses incurred in the transfer or conversion of foreign currency into U.S. dollars, and any taxes (other than Columbia income taxes or other taxes that are typically paid by Columbia) on such royalties required to be withheld at the source shall be the exclusive responsibility of Company, and shall not be used to decrease the amount of royalties due to Columbia; provided that Company shall only be entitled to withhold or deduct those Columbia income taxes or other taxes that are typically paid by Columbia to the extent such withholding or deduction is required by applicable Laws and is timely paid by Company to the appropriate Governmental Authority (and not refunded or reimbursed), and Company promptly provides evidence to Columbia of such withholding requirement and proof of payment. Company and Columbia will cooperate reasonably in completing and filing documents required under provisions of any applicable tax Laws or under any other applicable Laws in connection with the making of or exemption from any required tax payment or withholding payment, or in connection with any claim to a refund of or credit for any such payment. Royalty statements shall show sales both in the local currency and US dollars, with the exchange rate used clearly stated.

f. Company shall maintain at its principal office usual books of account and records showing its actions under this Agreement, and sufficient to determine Company's compliance with its obligations hereunder. Upon reasonable notice, but not more than once per Calendar Year, Columbia may have a certified public accountant or auditor, and an attorney (each as to whom Company has no reasonable objection) inspect and copy such books and records for purposes of verifying the accuracy of the amounts paid under this Agreement. The review may cover a period of not more than seven (7) years before the first day of the Calendar Quarter in which the review is requested. In the event that such review shows that Company has underpaid royalties by the lesser of (i) [***] with respect to any Calendar Quarter, or (ii) $[***] for any Calendar Quarter, or an aggregate of $[***] for any Calendar Year, Company shall pay, within ten (10) Business Days after demand by Columbia, the reasonable out-of-pocket costs and expenses of such review (including the fees charged by Columbia's accountant and attorney involved in the review), in addition to amount of any underpayment and any interest thereon. Columbia's accountant and attorney shall execute a confidentiality agreement in form and substance satisfactory to Company. Company agrees to cooperate fully with Columbia's accountant or auditor and attorney in connection with any such review. During the review, Company shall provide Columbia's accountant or auditor and attorney to audit and test for completeness, including without limitation, information relating to sales, inventory, manufacturing, purchasing, transfer records, customer lists, invoices, purchase orders, sales orders, shipping documentation, Third-Party royalty reports, cost information, pricing policies, and agreements with Third Parties (including Sublicensees, Designees, Affiliates of Company, Sublicensees and Designees, and customers).

g. Without limiting any other rights or remedies available to Columbia hereunder, if Company does not pay any amount due on or before the due date, Company shall pay to Columbia interest on any such amounts from and after the date such payments are due under this Agreement at a rate per annum equal to the then current "prime rate" in effect published in The Wall Street Journal, Eastern Edition, calculated on the total number of days payment is delinquent. In addition, Company shall reimburse Columbia for all reasonable out-of-pocket costs, including attorneys' fees and legal expenses, incurred in the collection of late payments.

h. All payments due and payable under this Agreement will be made without any deduction or withholding for or on account of any tax unless such deduction or withholding is required by applicable Laws.

i. Within ninety (90) days of each January 1 of each year during the Term, Company shall submit to

Columbia annual non-binding forecasts for annual Net Sales of Licensed Products by Company, Sublicensees, Designees and their respective Affiliates to Columbia for its internal budget purposes.

**6. Diligence.**

a. Company shall use its Commercially Reasonable Efforts to Develop and Commercialize at least one Licensed Product for commercial sale and distribution in the Field throughout the United States and such other areas of the Territory as Company determines to be commercially prudent, and to such end, such efforts will include the following:

(i) Milestone 1: Enrollment of the first patient in the first Phase I Clinical Trial for a Licensed Product within [***] of the Effective Date;

(ii) Milestone 2: Enrollment of the first patient in the first Phase II Clinical Trial for a Licensed Product within [***] of the Effective Date;

(iii) Milestone 3: Enrollment of the first patient in the first Phase III Clinical Trial for a Licensed Product within [***] of the Effective Date

(iv) Milestone 4: First Commercial Sale of a Licensed Product within [***] of the Effective Date.

For the avoidance of doubt, any of the milestones above may be achieved by the Company and/or its Sublicensee, Designee or any of their respective Affiliates, any of which shall satisfy the obligations above.

b. Company may request an extension to the performance periods of the milestones set forth above (an "Extension"), and Columbia shall grant such Extension, not to be unreasonably withheld, provided that: i) Company has exercised Commercially Reasonable Efforts in attempting to achieve the target completion dates, and ii) Company provides a written justification for such Extension and a plan for achieving the applicable milestone within the Extension period. The extension of the target completion date of any single milestone shall extend for the same amount of time all subsequent target completion dates.

c. Notwithstanding any other provisions of this Agreement, but subject to all Extensions, failure to achieve any of Company's diligence obligations under this Section 6 shall result in Columbia having the option of terminating the license granted under Section 2 in accordance with Section 16 of this Agreement, or converting such exclusive license to a nonexclusive license with no right to sublicense and no right to initiate legal proceedings pursuant to Section 11.

d. No less often than once per Calendar Year, Company shall report in writing to Columbia on progress made toward the diligence objectives set forth above.

**7. Confidentiality.**

a. Except to the extent required to discover, Develop, manufacture, use, sell, have sold, or distribute, Licensed Products in the Field in the Territory, Company will treat as confidential (i) the Patent Rights and Know-How disclosed hereunder, and (ii) and the existence and terms of all written agreements entered into between Columbia and Third Parties that have been disclosed by Columbia to Company in connection with the execution and delivery of this Agreement ("Columbia Confidential Information"), and will not disclose or distribute the foregoing to any Third Party without Columbia's written permission. Notwithstanding the foregoing, Company may disclose the foregoing to a Third Party to the extent such disclosure is reasonably necessary in the following situations:

(i) regulatory filings and other filings with governmental authorities or regulatory authorities, including filings with the U.S. Securities and Exchange Commission or relevant exchange on which

securities of the Company or its Affiliates are listed;

(ii) complying with applicable Laws, court orders and subpoenas;

(iii) disclosure to its Affiliates, employees, agents, consultants, other persons, and any bona fide potential or actual Sublicensees and Designees on a need-to-know basis and solely as necessary in connection with the performance of or as otherwise contemplated by this Agreement, provided that in each case the recipient of such Confidential Information must agree in writing to be bound by obligations of confidentiality and non-use at least as stringent as those set forth in this Section 7 prior to any such disclosure; and

(iv) disclosure to any actual or potential investor, investment banker, acquirer, merger partner, Sublicensee, and Designees or Affiliates; provided that each recipient of such Confidential Information to agree in writing to be bound by written confidentiality and non-use obligations, regarding the treatment of such Confidential Information, which terms shall include maintaining the confidentiality of such Confidential Information for at least three years from effective date of such confidentiality agreement (subject to customary exceptions), and that upon written request by the Company or termination or expiration of such agreement, such third party will destroy or return all Columbia Confidential Information to Company (except that the receiving party shall have the right to retain one copy of such Confidential Information for purposes of determining its obligations of confidentiality).

b. The obligations of confidentiality under this Section 7 do not apply to any Columbia Confidential Information that Company or any Company Confidential Information that Columbia can demonstrate:

(i) was known to the receiving party prior to receipt thereof from the disclosing party;

(ii) was or becomes a matter of public information or publicly available through no act or failure to act on the part of the receiving party;

(iii) is acquired by receiving party from a Third Party entitled to disclose it to receiving party; or

(iv) receiving party discovers or develops independently without reference to or use of such Columbia Confidential Information or Company Confidential Information, as evidenced by the receiving party's contemporaneous written records.

c. Columbia agrees that its trustees, officers, and employees, will not (i) disclose, publish, or use any confidential technology or business information of the Company, its Affiliates, Sublicensees and Designees, including the terms of this Agreement, ("Company Confidential Information"), or (ii) except as specifically contemplated by this Agreement, disclose the Patent Rights or Know-How to any Third Party without the Company's prior written consent.

**8. Disclaimer of Warranty; Limitations of Liability.**

a. Representations and Warranties of Columbia. As of the Effective Date, Columbia hereby represents and warrants to Company as follows:

(i) the Patent Rights are in good standing with the applicable patent office in which they are filed;

(ii) no claim, action, case, suit, litigation, arbitration, inquiry or proceeding is pending or, to the knowledge of the officers of Columbia's Office of the General Counsel and Columbia Technology Ventures as evidenced by written records held by the aforementioned, threatened by any Third Party (x) that seeks to challenge Columbia's ownership of the Patents Rights or Know-How, the validity of the Patent Rights, or the ability of Columbia to grant the licenses hereunder or (y) that alleges that use of the Patent Rights or Know-How by the

Company infringe or misappropriate any Third Party intellectual property rights;

(iii) all inventors of the pending patent applications within the definition of the Patent Rights have assigned all right, title and interest that they have in the Patent Rights to Columbia; provided that if Columbia has not obtained such an assignment with respect to a provisional patent application at the time of execution of this Agreement, Columbia shall obtain such assignment within a reasonable time following the execution of this Agreement;

(iv) Columbia's office of Columbia Technology Ventures has not entered into any written agreements with any Third Party that convey to such Third Party any rights or interests in or to the Patent Rights that conflict with the rights granted to the Company herein; and

(v) The Trustees of Columbia University in the City of New York (the "Trustees") have duly authorized Columbia Technology Ventures to enter into agreements licensing Columbia's intellectual property and the person identified below is authorized by the Trustees to execute this Agreement on behalf of Columbia.

b. EXCEPT FOR THE WARRANTIES CONTAINED IN SECTION 8A, COLUMBIA MAKES NO OTHER WARRANTIES EITHER EXPRESS OR IMPLIED OF ANY KIND, AND HEREBY EXPRESSLY DISCLAIMS ANY WARRANTIES, REPRESENTATIONS OR GUARANTEES OF ANY KIND AS TO THE PATENT RIGHTS, KNOW-HOW, LICENSED PRODUCTS AND/OR ANYTHING DISCOVERED, DEVELOPED, MANUFACTURED, USED, SOLD, OFFERED FOR SALE, IMPORTED, EXPORTED, DISTRIBUTED, OR OTHERWISE DISPOSED OF UNDER ANY LICENSE GRANTED HEREUNDER, INCLUDING BUT NOT LIMITED TO: ANY WARRANTIES OF MERCHANTABILITY, TITLE, FITNESS, ADEQUACY OR SUITABILITY FOR A PARTICULAR PURPOSE, USE OR RESULT; ANY WARRANTIES AS TO THE VALIDITY OF ANY PATENT; AND ANY WARRANTIES OF FREEDOM FROM INFRINGEMENT OF ANY DOMESTIC OR FOREIGN PATENTS, COPYRIGHTS, TRADE SECRETS OR OTHER PROPRIETARY RIGHTS OF ANY PARTY.

c. Except to the extent that a court of competent jurisdiction determines that certain claims, liability or damages directly arises out of or in connection with (x) the gross negligence or willful misconduct of Columbia, (y) the breach of any of the representations or warranties contained in Section 8a; or (z) a breach of Columbia's non-use and non-disclosure obligations set forth in Section 7c with respect to Company Confidential Information, in no event shall Columbia, or its trustees, officers, faculty members, students, employees and agents, have any liability to Company, Sublicensees, Designees, or Affiliates of the foregoing, or any Third Party arising out of the use, operation or application of the Patent Rights, Know-How, Licensed Products, or anything discovered, Developed, manufactured, used, sold, offered for sale, imported, exported, distributed, or otherwise disposed of under any license granted hereunder by Company, Sublicensees, Designees or Affiliates of the foregoing, or any Third Party for any reason, including but not limited to, the unmerchantability, inadequacy or unsuitability of the Patent Rights, Know-How, Licensed Products and/or anything discovered, developed, manufactured, used, sold, offered for sale, imported, exported, distributed, or otherwise disposed of under any license granted hereunder for any particular purpose or to produce any particular result, or for any latent defects therein.

d. Except to the extent that a court of competent jurisdiction determines that certain claims, liability or damages directly arises out of or in connection with (a) the gross negligence or willful misconduct of a Party, (b) the breach by Columbia of any of the representations or warranties contained in Section 8a; or (c) a breach of a Party's non-use or non-disclosure obligations set forth in Section 7, in no event will either party or their respective officers, employees and agents and in the case of Columbia, trustees, faculty members and students, be liable to the other party, or Sublicensees, Designees or Affiliates of the foregoing, or any Third Party, for any consequential, incidental, special or indirect damages (including, but not limited to, from any destruction to property or from any loss of use, revenue, profit, time or good will) based on activity arising out of or related to this Agreement, whether pursuant to a claim of breach of contract or any other claim of any type.

e. Except for liability arising under Company's indemnity obligations under Section 12, and except to the extent that a court of competent jurisdiction determines that certain claims, liability or damages directly arises

out of or in connection with (a) the gross negligence or willful misconduct of a Party, (b) the breach by Columbia of any of the representations or warranties contained in Section 8a; (c) a breach of a party's non-use or non-disclosure obligations set forth in Section 7, or (d) a breach by Columbia of its obligations under Section 11a, in no event shall either party's liability to the other party in the aggregate exceed the total of payments made to Columbia by Company under this Agreement.

f. The parties hereto acknowledge that the limitations and exclusions of liability and disclaimers of warranty set forth in this Agreement form an essential basis of the bargain between the parties.

**9. Prohibition Against Use of Each Party's Name.** Neither party will use the name, insignia, or symbols of the other party and in addition, in the case of Columbia, its faculties or departments, or any variation or combination thereof, or the name of any employee of a party and in addition, in the case of Columbia, any trustee, faculty member, other employee, or student for any purpose whatsoever without the other party's prior written consent; provided that Company may use Columbia's name only in connection with this Agreement when required to potential investors, Sublicensees, or Designees or to the U.S. Securities and Exchange Commission in connection with financing transactions.

**10. Compliance with Governmental Obligations.**

a. Notwithstanding any provision in this Agreement, Columbia disclaims any obligation or liability arising under the license provisions of this Agreement if Company or its Affiliates is charged in a governmental action for not complying with or fails to comply with governmental regulations in the course of taking steps to bring any Licensed Product to a point of practical application.

b. Subject to Company's right to maintain the confidentiality of Company Confidential Information, Company and its Affiliates shall comply upon reasonable notice from Columbia with all requests from Governmental Authorities directed to either Columbia or Company or its Affiliates and provide all information and assistance necessary to comply with such requests.

c. Company and its Affiliates shall ensure that research, Development, manufacturing and Commercialization of the Licensed Products under this Agreement complies with all applicable Laws and government regulations in force and effect including, but not limited to, federal, state, and municipal legislation.

**11. Patent Prosecution and Maintenance; Litigation.**

a. Columbia, by counsel of its choosing, to whom Company has no reasonable objection, in consultation with counsel appointed by the Company, will Prosecute and Maintain all Patent Rights in Columbia's name and in countries designated by the Company. Columbia shall provide Company copies of all invoices and confirmation of all maintenance, annuity and other payments relating to the Prosecution and Maintenance of the Patent Rights that Columbia receives from its outside patent counsel. Further, Columbia will instruct (and require) its outside patent counsel to provide promptly to Company copies of all material correspondence related to the Prosecution and Maintenance of the Patent Rights and promptly inform Company regarding all matters directly pertaining to such Prosecution and Maintenance. The parties agree that consultation between the parties relating to the Patent Rights under this Section 11 shall be pursuant to a common interest in the validity, enforceability and scope of the Patent Rights. Company shall treat such consultation, along with any information disclosed by Columbia in connection therewith (including any information concerning Patent Expenses), on a strictly confidential basis, and shall not disclose such consultation or information to any Third Party without Columbia's prior written consent other than Company's legal advisors and other Third Parties subject to a written confidentiality agreement. If Company initiates a Challenge, Columbia's consultation obligation under this Section 11a shall automatically terminate; for the avoidance of doubt, any such termination shall not affect Company's confidentiality and nondisclosure obligations with respect to consultation or disclosure of information prior to such termination, and shall not affect any other provisions of this Agreement (including Company's reimbursement obligation under Section 11b). Upon written request by Company, Columbia shall provide to Company a reasonably detailed budget for all expenses related to the Patent Rights estimated in good faith to be payable by Company for the next

succeeding four (4) Calendar Quarters. Company shall retain the rights to give comments to Columbia regarding all material aspects of such Prosecution and Maintenance and Columbia shall consider such comments in good faith. Columbia shall provide Company with sufficient advance written notice of any proposed prosecutorial action in order to give Company and its counsel time to respond to such proposed action and consider in good faith any comments provided by the Company (including comments regarding the impact on Company of any proposed prosecutorial action) in advance of any filings or responses, including any filings or responses that would reduce the scope of a patent claim within the Patent Rights. Company will promptly provide any comments regarding any proposed prosecutorial action in order to allow Columbia ample time to consider Company's comments. In the event that the Company and Columbia cannot agree about any prosecutorial action involving the scope of pending patent claims in the Patent Rights, Columbia shall control and make the decision regarding such prosecutorial action.

b. Patent Expenses means actual, documented, reasonable out-of-pocket expenses (including reasonable attorneys' fees, disbursements to agents in foreign jurisdictions, and government filing fees and annuity fees) incurred by Columbia in connection with the preparation, filing, Prosecution and Maintenance of the Patent Rights. Columbia, using reasonable efforts, estimates that Patent Expenses incurred as of November 30, 2015 ("Date of Estimate") under Section 11a are $214,433.93 (the "Initial Patent Expenses"). Company agrees to reimburse Columbia for such Initial Patent Expenses no later than April 10, 2016; provided that Company may extend such payment date, subject to the remainder of this Section 11b. If Company elects to extend such payment date beyond April 10, 2016, then, for the avoidance of doubt, Company shall not be in breach of this Agreement. Such extension shall be on the following terms:

(i) the Initial Patent Expenses shall automatically become due on the earliest to occur of (A) beginning April 10, 2017, payable in eight equal quarterly installments beginning on April 10, 2017, (B) the time of closing by Company of a cumulative Series A or other equity financing (not taking into account, for the avoidance of doubt, loans, grants, prizes, awards, gifts and similar payments) (a "Qualified Financing") of at least [***], or (C) on the first day of February following the first full Calendar Year in which Company records gross revenues from sales of Licensed Products of at least $[***], and

(ii) Company shall issue to Columbia common stock in the Company, which upon issuance, shall equal [***] of the outstanding common stock of the Company (the "Columbia Equity"). The Columbia Equity, if issued pursuant to the preceding sentence, shall not be subject to dilution through Company's receipt of [***] in cumulative Qualified Financings.

Subject to the foregoing, reasonable Patent Expenses incurred by Columbia after the Date of Estimate (the "Follow-on Patent Expenses") shall be reimbursed to Columbia by Company within thirty (30) days of receiving an invoice from Columbia. In the event that Company fails to promptly pay any non-US and non-PCT Follow-on Patent Expenses due to Columbia hereunder, Columbia shall notify Company and Company shall thereafter prepay non-US and non-PCT Follow-on Patent Expenses as follows: within thirty (30) days of Company's receipt of a Patent Expense estimate from Columbia, such estimate to be made by Columbia using its best efforts and presented no earlier than thirty (30) days before Columbia reasonably anticipates to start to incur such expense, Company shall make such prepayment to Columbia based on Columbia's Patent Expense estimate (with a reconciliation to be made once the estimated numbers are finalized). In the event that (i) Company achieves annual Net Sales in a Calendar Year of at least $[***], (ii) Company or its parent is a publicly-traded company with a market capitalization of at least $[***], (iii) Company receives [***] in cumulative Qualified Financings, or (iv) Company makes all prepayments of such Follow-on Patent Expenses under this Section 11b in accordance with this paragraph for a period of two (2) Calendar Years, Company shall notify Columbia and upon such notification, Company shall no longer be obligated to make such prepayments and shall thereafter revert to reimbursing Columbia for Follow-on Patent Expenses within thirty (30) days of receiving an invoice from Columbia. In the event that Company fails to promptly pay any Follow-on Patent Expenses, such failure shall constitute a material breach of this Agreement which may be cured by Company in accordance with Section 15b.

c. Subject to Section 11d, Columbia shall have the first right to initiate, control, defend and/or settle

any proceedings involving the validity, enforceability or infringement of any Patent Rights when in its sole judgment such action may be necessary, proper, and justified. In the event that Columbia does not exercise its rights under this provision within ninety (90) days after receipt of written request thereof from the Company (or sooner in the event that a lapse of ninety (90) days would bar the Company from taking any action because of the lapse of time (i.e., a statute of limitations)), then Company shall have the second right to initiate, control, defend and/or settle such proceedings, at its own expense; provided that any proposed disposition or settlement of such proceedings shall be subject to Columbia's written consent, which shall not be unreasonably withheld or delayed.

d. Upon written notice to Columbia, Company may request that Columbia take steps to stop a Third Party who is selling a product that does or will compete with a Licensed Product sold or being Developed by Company or any of its Affiliates (but not a Sublicensee, or Sublicensee Affiliate) ("Third Party Infringer") from infringing an issued patent falling within Patent Rights by providing Columbia with written evidence demonstrating prima facie infringement of specific claims of such Patent Rights. Company shall have the right to initiate legal proceedings against any such Third-Party Infringer in its own name and at Company's sole expense, unless Columbia, not later than ninety (90) days after receipt of such notice, either (i) causes such infringement to cease or (ii) initiates legal proceedings against the Third-Party Infringer. Company will provide all assistance reasonably requested by Columbia, at Columbia's expense and will not make any admission or assert any position in any legal or administrative proceeding that is inconsistent with or adverse to any position asserted by Columbia in any proceedings against the Third Party Infringer, without Columbia's prior written consent. Notwithstanding the foregoing, Columbia shall have no obligation to assert more than one Patent Right in one jurisdiction against the Third-Party Infringer. Any proposed disposition or settlement of a legal proceeding filed by Company to enforce any issued patent falling within Patent Rights against any Third-Party Infringer shall be subject to Columbia's prior written approval, which approval shall not be unreasonably withheld or delayed. Notwithstanding the foregoing, Company's rights under this Section 11d shall apply only to Valid Claims of Patents Rights that are exclusively licensed to Company under this Agreement and only in the Field and Territory which are exclusively licensed to Company under this Agreement.

e. Any recovery, whether by way of settlement or judgment, from a Third Party pursuant to a legal proceeding initiated in accordance with Section 11d shall first be used to reimburse the party initiating such legal proceeding for its actual fees, costs and expenses incurred in connection with such proceeding. Any remaining amounts from any such settlement or judgment shall be divided as follows: (i) Columbia shall retain or receive, as applicable, the royalty that it would have otherwise received under Section 4a(iii) had such activities been performed by Company, and (ii) all other such amounts (including any punitive or exemplary damages) shall be divided [***].

f. In the event a party initiates or defends a legal proceeding concerning any Patent Rights pursuant to Section 11, the other party, at the initiating party's expense, shall cooperate fully with and supply all assistance reasonably requested by the party initiating such proceeding. In the event that the court presiding over the proceeding determines that the non-initiating party is a necessary party to the proceeding, the non-initiating party shall join the proceeding at the initiating party's expense. The party that institutes any legal proceeding concerning any Patent Rights pursuant to Section 11 shall have sole control of and be responsible for all costs associated with such proceeding.

**12. Indemnity and Insurance.**

a. Company will indemnify, defend, and hold harmless Columbia, its trustees, officers, faculty, employees, students and agents, from and against any and all actions, suits, claims, demands, prosecutions, liabilities, costs, expenses, damages, deficiencies, losses or obligations (including attorneys' fees) based on, arising out of, or relating to this Agreement, including, without limitation, (i) the discovery, Development, manufacture, packaging, use, sale, offering for sale, importation, exportation, or distribution, of Licensed Products, even if altered for use for a purpose not intended, (ii) the use of Patent Rights or Know-How, by Company, Sublicensees, Designees, or their Affiliates or customers, (iii) any representation made or warranty given by Company, Sublicensees, Designees, or their respective Affiliates with respect to Licensed Products, Patent Rights or Know-How , (iv) any infringement claims relating to Licensed Products, Patent Rights or Know-How, and (v) any asserted violation of the Export Laws (as defined in Section 14 hereof) by Company, Sublicensees, Designees, or their

Affiliates. Company shall reimburse Columbia for the actual fees, costs, and expenses (including reasonable attorneys' fees) that it may incur in enforcing this provision. The indemnified parties shall provide Company with prompt written notice of the applicable Third Party claim for which they seek indemnification and shall cooperate with Company in all reasonable respects, and Company shall have the sole right to control the defense and settlement of all such claims; provided that Columbia's approval will be required (such approval not to be unreasonably withheld or delayed) of any settlement in the event that the proposed disposition or settlement involves (i) terms that would reasonably be likely to adversely affect the scope, validity or enforceability of any of the Patent Rights, or (ii) an admission or stipulation that Columbia violated any law, regulation, or rule or any rights of any person or entity.

b. Beginning at least five (5) Business Days prior to the time any Licensed Product is being commercially marketed, distributed or sold (other than for the purpose of obtaining regulatory approvals) by Company, or by an Affiliate, Sublicensee or agent of Company, Company shall, at its sole cost and expense, procure and maintain commercial general liability insurance (including product liability and contractual liability insurance applicable to Company's indemnity obligations under Section 12a) with reputable and financially secure insurance carriers reasonably acceptable to Columbia to cover the activities of Company, Sublicensees, Designees, and their respective Affiliates, for minimum limits of $5,000,000 combined single limit for bodily injury and property damage per occurrence and in the aggregate. Such insurance shall include Columbia, its trustees, faculty, officers, employees and agents (collectively, the "Indemnitees") as additional insureds. Company shall furnish a certificate of insurance evidencing such coverage, with thirty days' written notice to Columbia of cancellation or material change in coverage. The minimum amounts of insurance coverage required herein shall not be construed as creating any limitation on the Company's indemnity obligation under Section 12a of this Agreement.

c. Company's insurance shall be primary coverage; any insurance Columbia may purchase shall be excess and noncontributory. The Company's insurance shall be written to cover claims incurred, discovered, manifested, or made during or after the expiration of this Agreement.

d. Company shall at all times comply with all statutory workers' compensation and employers' liability requirements covering its employees with respect to activities performed under this Agreement.

**13. Marking.** Prior to the issuance of patents falling within Patent Rights, Company shall mark all Licensed Products made, sold, offered for sale, imported, or otherwise disposed of by Company under the license granted in this Agreement with the words "Patent Pending," and following the issuance of one or more patents, with the numbers of such patents. The Company shall cause its Affiliates, and its Sublicensees and Designees and their Affiliates, to comply with the marking requirements of this Section 13.

**14. Export Control Laws.**

a. Company agrees to comply with U.S. export laws and regulations pertaining to the export of technical data, services and commodities, including the International Traffic in Arms Regulations (22 C.F.R. § 120 et seq.), the Export Administration Regulations (15 C.F.R. § 730 et seq.), the regulations administered by the Treasury Department's Office of Foreign Assets Control (31 C.F.R. § 500, et seq.), and the Anti-Boycott Regulations (15 C.F.R. § 760). The parties shall cooperate with each other to facilitate compliance with these laws and regulations.

b. Company understands that sharing controlled technical data with non-U.S. persons is an export to that person's country of citizenship that is subject to U.S. export laws and regulations, even if the transfer occurs in the United States. Company shall obtain any necessary U.S. government license or other authorization required pursuant to the U.S. export control laws and regulations for the export or re-export of any commodity, service or technical data covered by this Agreement, including technical data acquired from Columbia pursuant to this Agreement and Licensed Products created as a result of that data.

**15. Breach and Cure.**

a. In addition to applicable legal standards, Company shall be deemed to be in material breach of this Agreement for: (i) failure to pay fully and promptly amounts due pursuant to Section 4 and payable pursuant to Section 5; (ii) failure of Company to meet any of its obligations under Section 6 of this Agreement; (iii) failure to comply with requests from Government Authorities directed to Columbia or Company pursuant to Section 10b; (iv) failure to reimburse Columbia for or pay fully and promptly the costs of Prosecuting and Maintaining Patent Rights pursuant to Section 11; (v) failure to obtain and maintain insurance in the amount and of the type provided for in Section 12; and (vi) failure to comply with the Export Laws under Section 14.

b. Either party shall have the right to cure its material breach. The cure shall be effected within a reasonable period of time but in no event later than sixty (60) days after notice of any breach given by the non-breaching party; provided that in the event that Company fails (i) to achieve Company's diligence obligations under Section 6 (subject to all Extensions), Company shall have ninety (90) days to cure such breach, or (ii) to promptly reimburse Patent Expenses in accordance with Section 11b, Company shall have thirty (30) days to cure such breach.

**16. Term of Agreement.**

a. The term of this Agreement shall commence on the Effective Date and, unless terminated as provided in this Section 16, shall continue in full force and effect until the expiration of the last to expire Royalty Term (the "Term"). Upon expiration of this Agreement under this Section 16a, the Company shall thereafter be free to use the Know-How without any further obligation to Columbia.

b. Company may terminate this Agreement or any license granted hereunder, in whole or in part, with respect to any Patent Rights or Know-How, any uses or applications in the Field, any territory(ies) and/or any Licensed Products, without cause upon sixty (60) days prior written notice to Columbia.

c. The license granted under this Agreement may be terminated by Columbia or, at Columbia's option, Columbia has the right to convert such exclusive license granted under this Agreement to a nonexclusive license, with no future right to sublicense , and no right by Company to initiate legal proceedings pursuant to Section 11: (i) upon ninety (90) days written notice to Company if Columbia elects to terminate in accordance with Section 6c and Company fails to cure its breach within such 90 day period in accordance with Section 15b; (ii) upon written notice to Company for Company's material breach of the Agreement and Company's failure to cure such material breach in accordance with Section 15b; (iii) in the event Company files a bankruptcy petition pursuant to the U.S. Bankruptcy Code; (iv) in the event Company ceases to conduct business as a going concern; and (v) in the event Company (or any entity or Person acting on its behalf) initiates a Challenge. Termination under (i) – (v) shall be effective upon date of notice sent pursuant to Section 17.

d. Upon any termination of this Agreement pursuant to Sections 16c, all sublicenses granted by the Company under it shall be assigned to Columbia, provided that Columbia's obligations under such sublicense shall be consistent with and not exceed Columbia's obligations to Company under this Agreement and provided that such Sublicensee agrees in a writing sent to Columbia to assume all obligations of this Agreement for the benefit of Columbia, including the obligations to make all payments due under this Agreement, including but not limited to those specified in Sections 4a(ii), 4a(iii), 4a(iv), 4a(v), 4d and 11b.

e. Sections 4d(ii), 5d, 5f, 5g, 5h, 7, 8, 9, 10a, 10b, 12a, 12c, 12d, 14, 16a (last sentence), 16d, 16e, 16f, 16g, 17, 19, 22, 23, and 25 will survive any termination or expiration of this Agreement.

f. Any termination of this Agreement shall not adversely affect any rights or obligations that may have accrued to either party prior to the effective date of termination, including without limitation, Company's obligation to pay all amounts due and payable under Sections 4, 5 and 11 hereof.

g. Upon any termination of this Agreement for any reason other than the expiration of this Agreement under Section 16b or Company's failure to cure a material breach of this Agreement under Section 16c(ii), Company, Sublicensees, Designees, and their Affiliates shall have the right, for one (1) year or such longer

period as the parties may reasonably agree, to dispose of Licensed Products or substantially completed Licensed Products then on hand, and to complete orders for Licensed Products then on hand, and royalties shall be paid to Columbia with respect to such Licensed Products as though this Agreement had not terminated.

**17. Notices.** Any notice required or permitted to be given under this Agreement shall be sufficient if in writing and shall be considered given (i) when mailed by certified mail (return receipt requested), postage prepaid, (ii) on the date of actual delivery by hand or overnight delivery, with receipt acknowledged, or (iii) by facsimile or electronic transmission, with written receipt of delivery:

if to Columbia, to:
Executive Director
Columbia Technology Ventures
Columbia University
80 Claremont Avenue, #4F, Mail Code 9606
New York, NY 10027-5712

copy to:
General Counsel
Columbia University
412 Low Memorial Library
535 West 116th Street, Mail Code 4308
New York, New York 10027

if to the Company, to:
Vixen Pharmaceuticals, Inc.
c/o Sills Cummis & Gross P.C.
One Riverfront Plaza
Newark, New Jersey 07102
Attention: Lori M. Waldron, Esq.

or to such other address as a party may specify by notice hereunder.

**18. Assignment.** This Agreement may not be assigned, in whole or in part, by either party without the other party's prior written consent and, except as herein provided, any such purported assignment will be null and void. Notwithstanding the foregoing, Company may assign this Agreement without the prior written consent of Columbia, in the event the assignment is: (i) to a purchaser of all or substantially all of Company's business or assets relating to the subject matter of this Agreement; (ii) part of a change of control of Company, including without limitation a merger of Company with a Third Party (to the extent that such change of control is considered an assignment under applicable Law), or (iii) in connection with a license of all or substantially all of the assets of the Company relating to the subject matter of this Agreement to a Third Party (to the extent that such license is considered an assignment under applicable Law); provided that, in each case, the successor entity expressly agrees in writing to assume and be bound by all obligations of Company under this Agreement. Company will notify Columbia in writing of an assignment of this Agreement in accordance with this Section 18 within thirty (30) days following such assignment.

**19. Waiver and Election of Remedies.** The failure of any party to insist upon strict adherence to any term of this Agreement on any occasion shall not be considered a waiver or deprive that party thereafter of the right to insist upon strict adherence to that term or any other term of this Agreement. All waivers must be in writing and signed by an authorized representative of the party against which such waiver is being sought. The pursuit by either party of any remedy to which it is entitled at any time or continuation of the Agreement despite a breach by the other shall not be deemed an election of remedies or waiver of the right to pursue any other remedies to which it may be entitled.

**20. Binding on Successors.** This Agreement shall be binding upon and inure to the benefit of the parties and their respective successors and assigns to the extent assignment is permitted under this Agreement.

**21. Independent Contractors.** It is the express intention of the parties that the relationship of Columbia and the Company shall be that of independent contractors and shall not be that of agents, partners or joint venturers.

Nothing in this Agreement is intended or shall be construed to permit or authorize either party to incur, or represent that it has the power to incur, any obligation or liability on behalf of the other party.

**22.** **Entire Agreement; Amendment.** This Agreement, together with the Exhibits, sets forth the entire agreement between the parties concerning the subject matter hereof and supersedes all previous agreements, written or oral, concerning such subject matter, including the Option Agreement dated April 10, 2015. This Agreement may be amended only by written agreement duly executed by the parties.

**23.** **Severability.** In the event that any provision of this Agreement is held by a court of competent jurisdiction to be unenforceable because it is invalid, illegal or unenforceable, the validity of the remaining provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular provisions held to be unenforceable, unless such construction would materially alter the meaning of this Agreement.

**24.** **No Third-Party Beneficiaries.** Except as expressly set forth herein, the parties hereto agree that there are no third-party beneficiaries of any kind to this Agreement.

**25.** **Governing Law.** This Agreement shall be governed by and construed in accordance with the internal substantive laws of the State of New York as applicable to agreements made and wholly performed within the State of New York, and without reference to the conflict or choice of laws principles of any jurisdiction. Unless otherwise separately agreed in writing, the parties agree that any and all claims arising under or related to this Agreement shall be heard and determined only in either the United States District Court for the Southern District of New York or in the courts of the State of New York located in the City and County of New York, and the parties irrevocably agree to submit themselves to the exclusive and personal jurisdiction of those courts and irrevocably waive any and all rights any such party may now or hereafter have to object to such jurisdiction or the convenience of the forum.

**26.** **Execution in Counterparts; Facsimile or Electronic Transmission**. This Agreement may be executed in counterparts, and by facsimile or electronic transmission. Facsimile and electronic transmission signatures shall be treated as original signatures. This Agreement is not binding on the parties until it has been signed below on behalf of each party.

[signatures on following page]

IN WITNESS WHEREOF, Columbia and the Company have caused this Agreement to be executed by their duly authorized representatives as of the day and year first written above.

| | |
|---|---|
| THE TRUSTEES OF COLUMBIA UNIVERSITY<br>IN THE CITY OF NEW YORK | VIXEN PHARMACEUTICALS, INC. |
| By: /s/ Scott Hamilton<br>Name: Scot Hamilton<br>Title: Senior Director<br>Columbia Technology Ventures | By: /s/ Angela M. Christiano, PhD<br>Name: Angela M. Christiano, PhD<br>Title: Founder |
| Date Signed: 12/31/15<br>TTID: 48058 | Date Signed: 12/31/15 |

# EXHIBIT A

| IR | Docket | Patent/Application Title | Patent/Application No. | Filing Date | Status |
|---|---|---|---|---|---|
| [***] | [***] | [***] | [***] | [***] | [***] |

# EXHIBIT B – KNOW-HOW

1. Data from preclinical and clinical studies or collections, including but not limited to gene expression, sequencing, genotyping, biomarker, treatment, outcomes, and registry data.
2. Pre-clinical and clinical research tools, including but not limited to models, biomarkers, reference standards, as well as protocols and know-how relating to the development and use thereof.
3. Protocols and know-how relating to design and conduct of preclinical and clinical studies, including but not limited to considerations such as target biology, mechanism of action, natural history of disease, dosing regimen, formulation, subject recruitment, and subject compliance.
4. Protocols and know-how relating to acquisition, analysis and interpretation of pre-clinical and clinical data, including but not limited to gene expression, sequencing, genotyping, imaging, biomarker, treatment, and other data acquired from study subjects (animal or human).
5. Research data, research results, and other research information contained in unpublished manuscripts and grant applications.

**EXHIBIT 10.2**

**THIRD AMENDMENT TO SERVICES AGREEMENT**
**BETWEEN**
**NST CONSULTING, LLC**
**AND**
**ACLARIS THERAPEUTICS, INC.**

This Third Amendment to the Services Agreement ("Third Amendment") made and entered into this 24th day of November 2015 and effective as of October 1, 2015 ("Effective Date"), by and between NST CONSULTING, LLC ("NST') and ACLARIS THERAPEUTICS, INC. ("Aclaris").

WHEREAS, NST provides certain management services to Aclaris pursuant to that certain Services Agreement dated February 5, 2014 ("Services Agreement"), as amended by the First Amendment dated December 19, 2014 and the Second Amendment dated August 11, 2015, the services being more specifically described therein; and

WHEREAS, NST and Aclaris wish to further amend the Services Agreement as follows;

NOW, THEREFORE, in consideration of and the agreement of each other, NST and Aclaris agree that the Services Agreement shall be and the same is hereby amended as follows:

1. Incorporation of Recitals. The recitals set forth above, the Services Agreement referred to therein and the exhibits attached hereto are hereby incorporated herein by reference as if set forth in full in the body of this Third Amendment. Capitalized terms not otherwise defined herein shall have the meanings given to them in the Services Agreement.

2. Exhibit A. Exhibit A is deleted in its entirety and replaced with the new Exhibit A attached hereto.

4. Binding Effect. Except as expressly amended hereby, the Services Agreement remains in full force and effect in accordance with its terms.

IN WITNESS WHEREOF, NST and Aclaris have duly executed this Third Amendment on the date first above written.

| **NST CONSULTING, LLC** | **ACLARIS THERAPEUTICS, INC.** |
|---|---|
| By: ___/s/ Douglas Gessl_____ | By: ___/s/ Neal Walker_____ |
| Name: _Douglas Gessl_____ | Name: _Neal Walker_____ |
| Title: _CFO_____ | Title: __President and CEO_____ |

**EXHIBIT A – 3rd AMENDMENT**

**(effective October 1, 2015)**

**FEES AND DESCRIPTION OF PERSONNEL AND SERVICES PROVIDED BY NST TO ACLARIS**

· **Executive Personnel Compensation paid by Aclaris to NST**:
NST will provide the services of Kelly Copeland (33.33% time allocation) and Evan Dick (50% time allocation). The new total monthly cost for these services will be $[***] (includes benefits charge, excludes bonuses). Effective October 1, 2015, Steve Tullman will be paid directly by Aclaris.

· **Administrative Support Staff**:
$[***]/month (includes benefits charge, excludes bonuses and Gina Reed)

· **Total Overhead Charge**:
Increased $[***]/month to $[***]/month which covers utilities, general insurance, office supplies, computer server, furniture, etc. , but not mobile phone or laptop/desktop computers.

· **Monthly Amounts Due from Aclaris to NST:**

Executive Personnel: $[***]

Administrative Support Staff: $[***]

Overhead Charge: $[***]

**Total Due from Aclaris to NST for Services Provided: $40,545.00**

· **Executive Personnel Compensation paid by NST to Aclaris**:
(1) Reimbursement for Christopher Powala (30% time allocation), Stuart Shanler (25% time allocation), Frank Ruffo (30% time allocation) and Kamil Ali-Jackson (35% time allocation) including a ~25% benefits =$34,780.
(2) Bonuses are a pass-through via Alexar Therapeutics, Inc.

· **Monthly Amounts Due from NST to Aclaris:**

Executive Personnel: $34,780.00

Admin Support: $ 3,020.00 (incl. ~25% benefits charge, excludes pass through bonus)

**Total Due from NST to Aclaris for Certain Personnel Reimbursement Expenses: $37,800.00**

· **Net Monthly Amounts Due to Aclaris from NST (excluding rent):**
**Monthly Due from Aclaris to NST: $2,745.00**

**EXHIBIT 10.3**

**FOURTH AMENDMENT TO SERVICES AGREEMENT**
**BETWEEN**
**NST CONSULTING, LLC**
**AND**
**ACLARIS THERAPEUTICS, INC.**

This Fourth Amendment to the Services Agreement ("Fourth Amendment") made and entered into this 8th day of January 2016 and effective as of November 1, 2015 ("Effective Date"), by and between NST CONSULTING, LLC ("NST') and ACLARIS THERAPEUTICS, INC. ("Aclaris").

WHEREAS, NST provides certain management services to Aclaris pursuant to that certain Services Agreement dated February 5, 2014 ("Services Agreement"), as amended by the First Amendment dated December 19, 2014, the Second Amendment dated August 11, 2015, and the Third Amendment dated November 24, 2015, the services being more specifically described therein; and

WHEREAS, NST and Aclaris wish to further amend the Services Agreement as follows;

NOW, THEREFORE, in consideration of and the agreement of each other, NST and Aclaris agree that the Services Agreement shall be and the same is hereby amended as follows:

1. Incorporation of Recitals. The recitals set forth above, the Services Agreement referred to therein and the exhibits attached hereto are hereby incorporated herein by reference as if set forth in full in the body of this Third Amendment. Capitalized terms not otherwise defined herein shall have the meanings given to them in the Services Agreement.

2. Exhibit A. Exhibit A is deleted in its entirety and replaced with the new Exhibit A attached hereto.

4. Binding Effect. Except as expressly amended hereby, the Services Agreement remains in full force and effect in accordance with its terms.

IN WITNESS WHEREOF, NST and Aclaris have duly executed this Fourth Amendment on the date first above written.

| **NST CONSULTING, LLC** | **ACLARIS THERAPEUTICS, INC.** |
|---|---|
| By: ___/s/ Douglas Gessl_____ | By: ___/s/ Neal Walker_____ |
| Name: _Douglas Gessl_____ | Name: _Neal Walker_____ |
| Title: _CFO_____ | Title: __President and CEO_____ |

**EXHIBIT A – 4th AMENDMENT**

**(effective November 1, 2015)**

**FEES AND DESCRIPTION OF PERSONNEL AND SERVICES PROVIDED BY NST TO ACLARIS**

· **Executive Personnel Compensation paid by Aclaris to NST**:
NST will provide the services of Kelly Copeland (33.33% time allocation) and Evan Dick (60% time allocation). The new total monthly cost for these services will be $[***] (includes benefits charge, excludes bonuses).

· **Administrative Support Staff**:
$[***]/month (includes benefits charge, excludes bonuses, Joann DeLucca and Gina Reed)

· **Total Overhead Charge**:
Increased to $[***]/month which covers utilities, general insurance, office supplies, computer server, furniture, etc. , but not mobile phone or laptop/desktop computers.

· **Monthly Amounts Due from Aclaris to NST:**

Executive Personnel: $[***]

Administrative Support Staff: $[***]

Overhead Charge: $[***]

**Total Due from Aclaris to NST for Services Provided: $41,200.00**

· **Executive Personnel Compensation paid by NST to Aclaris**:
(1) Reimbursement for Christopher Powala (30% time allocation), Stuart Shanler (25% time allocation), Frank Ruffo (30% time allocation) and Kamil Ali-Jackson (35% time allocation) including a ~25% benefits =$34,780.
(2) Bonuses are a pass-through via Alexar Therapeutics, Inc.

· **Monthly Amounts Due from NST to Aclaris:**

Executive Personnel: $34,780.00

Admin Support: $ 3,020.00 (incl. ~25% benefits charge, excludes pass through bonus)

**Total Due from NST to Aclaris for Certain Personnel Reimbursement Expenses: $37,800.00**

· **Net Monthly Amounts Due to Aclaris from NST (excluding rent):**
**Monthly Due from Aclaris to NST: $3,400.00**

**EXHIBIT 10.4**

**FIFTH AMENDMENT TO SERVICES AGREEMENT**
**BETWEEN**
**NST CONSULTING, LLC**
**AND**
**ACLARIS THERAPEUTICS, INC.**

This Fifth Amendment to the Services Agreement ("Fifth Amendment") made and entered into this 8th day of January 2016 and effective as of January 1, 2016 ("Effective Date"), by and between NST CONSULTING, LLC ("NST') and ACLARIS THERAPEUTICS, INC. ("Aclaris").

WHEREAS, NST provides certain management services to Aclaris pursuant to that certain Services Agreement dated February 5, 2014 ("Services Agreement"), as amended by the First Amendment dated December 19, 2014, the Second Amendment dated August 11, 2015, the Third Amendment dated November 24, 2015, and the Fourth Amendment dated January 8, 2016, the services being more specifically described therein; and

WHEREAS, NST and Aclaris wish to further amend the Services Agreement as follows;

NOW, THEREFORE, in consideration of and the agreement of each other, NST and Aclaris agree that the Services Agreement shall be and the same is hereby amended as follows:

1. Incorporation of Recitals. The recitals set forth above, the Services Agreement referred to therein and the exhibits attached hereto are hereby incorporated herein by reference as if set forth in full in the body of this Third Amendment. Capitalized terms not otherwise defined herein shall have the meanings given to them in the Services Agreement.

2. Exhibit A. Exhibit A is deleted in its entirety and replaced with the new Exhibit A attached hereto.

4. Binding Effect. Except as expressly amended hereby, the Services Agreement remains in full force and effect in accordance with its terms.

IN WITNESS WHEREOF, NST and Aclaris have duly executed this Fifth Amendment on the date first above written.

| **NST CONSULTING, LLC** | **ACLARIS THERAPEUTICS, INC.** |
|---|---|
| By: ___/s/ Douglas Gessl_____ | By: ___/s/ Neal Walker_____ |
| Name: _Douglas Gessl_____ | Name: _Neal Walker_____ |
| Title: _CFO_____ | Title: __President and CEO_____ |

**EXHIBIT A- 5th Amendment**

**(effective January 1, 2016)**

· **Executive Personnel Compensation paid by Aclaris to NST**:
NST will provide the services of Kelly Copeland (33.33% time allocation) and Evan Dick (60% time allocation). The new total monthly cost for these services will be $[***] (includes benefits charge, excludes bonuses).

· **Administrative Support Staff**:
(Equals 35% of M. Walker and J. Good, 60% T. Rambert)

$[***]/month (includes benefits charge, excludes bonuses, Joann DeLucca, G. Benoit-Rosa and Gina Reed)

· **Total Overhead Charge**:
Increased to $[***]/month which covers utilities, general insurance, office supplies, computer server, existing furniture, etc., but not mobile phone or laptop/desktop computers.

· **Monthly Amounts Due from Aclaris to NST:**

Executive Personnel: $[***]

Administrative Support Staff: $[***]

Overhead Charge: $[***]

**Total Due from Aclaris to NST for Services Provided: $39,800.00**

· **Executive Personnel Compensation paid by NST to Aclaris**:

(1) Reimbursement for Christopher Powala (10% time allocation), Stuart Shanler (10% time allocation) and Lisa Shultz (25% time allocation) including a ~25% benefits = $9,425.00.

(2) Bonuses are a pass-through via Alexar Therapeutics, Inc.

· **Monthly Amounts Due from NST to Aclaris:**

Executive Personnel: $9,425.00

Admin Support: $1,250.00 (20% of G. Reed, incl. ~25% benefits charge, excludes pass through bonus)

**Total Due from NST to Aclaris for Certain Personnel Reimbursement Expenses: $10,675.00**

· **Net Monthly Amounts Due to Aclaris from NST (excluding rent):**
**Monthly Due from Aclaris to NST: $29,125.00**

**THIRD AMENDMENT TO AMENDED AND RESTATED SUBLEASE**
**BETWEEN**
**NST CONSULTING, LLC**
**AND**
**ACLARIS THERAPEUTICS, INC.**

This Third Amendment to the Amended and Restated Sublease ("Third Amendment") made and entered into this 8th day of February 2016 and effective as of December 1, 2015 ("Effective Date"), by and between **NST CONSULTING, LLC**, hereinafter referred to as "Sublandlord" and **ACLARIS THERAPEUTICS, INC**, hereinafter referred to as "Subtenant".

WHEREAS, Sublandlord currently leases certain premises consisting of 15,272 rentable square feet of space commonly referred to as Suite 400 ("Premises") located at 101 Lindenwood Drive, Malvern, Pennsylvania 19355 ("Building") from Landlord and subleases 4,833 rentable square feet of such Premises to Subtenant pursuant to that certain Amended and Restated Sublease dated March 3, 2014, as amended, hereinafter referred to as "Sublease," the Premises being more particularly described therein; and

WHEREAS, NEXEPTION, INC. assigned all rights and obligations under the Sublease to its Affiliate, NST Consulting, LLC pursuant to an Assignment and Assumption Agreement dated August 11, 2015; and

WHEREAS, Sublandlord and Subtenant wish to further amend the Sublease as follows;

NOW, THEREFORE, in consideration of and the agreement of each other, Sublandlord and Subtenant agree that the Sublease shall be and the same is hereby amended as follows:

1. Incorporation of Recitals. The recitals set forth above, the Sublease referred to therein and the exhibits attached hereto are hereby incorporated herein by reference as if set forth in full in the body of this Third Amendment. Capitalized terms not otherwise defined herein shall have the meanings given to them in the Sublease.

2. The following sections of the Sublease Term are amended as follows:

a. Exhibit A to the Sublease is deleted in its entirety and replaced with the new Exhibit A attached hereto and made a part hereof. All references to Exhibit A in the Sublease are references to this new Exhibit A.

b. Section 2 Sublease Space and Term. Section 2 of the Sublease is deleted in its entirety and replaced with the following new paragraph:

"Commencing on December 1, 2015, the parties agree to increase the portion of the Premises subleased to Subtenant from 4,833 to 9,436 square feet and commencing on June 1, 2016, the parties agree to increase the portion of the Premises subleased from Subtenant from 9,436 to 11,659 square feet, each of which increase is greater than twenty percent (20%) of the Sublease Space. Exhibit A is hereby deleted and replaced with the new Exhibit A attached hereto and made a part hereof."

c. Section 3(a) Fixed Rent. Commencing on December 1, 2015, Subtenant shall pay Sublandlord the following Fixed Rent for the Sublease Space per month, in advance, without notice, demand, offset, or counterclaim, on the first day of each month during the Sublease Term:

| Time Period | Rent/RSF | Monthly Installment |
|---|---|---|
| 12/01/15-5/31/16** | $22.00* | $17,300.00 |

* Plus any charges set forth in Articles 6 and Article 7 of the Master Lease

** Subtenant will pay electric costs pursuant to Article 6 of the Master Lease and janitorial costs in the amount of $1.26 per rentable square feet of the Premises.

c. Section 3(e) Additional Rent. Commencing on December 1, 2015, Subtenant's Allocated Share for the Sublease Space is 61.5 0% and commencing on June 1, 2016, Subtenant's Allocated Share for the Sublease Space is 76.0% of Sublandlord's Allocated Share, as such share may be adjusted, from time to time, on the basis of corresponding changes in the square footage of the Sublease Space.

d. Section 6 Security Deposit. Commencing on June 1, 2016, Subtenant's Security Deposit shall be increased from $20,000 to $25,000.

3. Binding Effect. Except as expressly amended hereby, the Sublease remains in full force and effect in accordance with its terms. **Subtenant specifically acknowledges and agrees that Article 22(f) of the Lease concerning Confession of Judgment is and shall remain in full force and effect in accordance with its terms.**

Commencing on June 1, 2016, Subtenant shall pay Sublandlord the following Fixed Rent for the Sublease Space per month, in advance, without notice, demand, offset, or counterclaim, on the first day of each month during the Sublease Term:

| Time Period | Rent/RSF | Monthly Installment |
|---|---|---|
| 6/01/16 -11/30/16** | $22.00* | $21,375.00 |
| 12/01/16 -11/30/17** | $22.50* | $21,860.63 |
| 12/1/17 -11/30/18** | $23.00* | $22,346.42 |
| 12/1/18 -11/30/19** | $23.50* | $22,832.21 |

* Plus any charges set forth in Articles 6 and Article 7 of the Master Lease

** Subtenant will pay electric costs pursuant to Article 6 of the Master Lease and janitorial costs in the amount of $1.26 per rentable square feet of the Premises.

IN WITNESS WHEREOF, Sublandlord and Subtenant have duly executed this Third Amendment on the date first above written.

SUBLANDLORD:
**NST CONSULTING, LLC**
By:

WITNESS:

_/s/ Melissa Walker_____

By: _/s/ Douglas Gessl_____
Name: Douglas Gessl
Title: CFO

SUBTENANT:
**ACLARIS THERAPEUTICS, INC.**

ATTEST:

_/s/ Kamil Ali-Jackson_____

By: _/s/ Neal Walker_____
Name: Neal Walker
Title: CEO

**Exhibit 31.1**

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER**
**PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Neal Walker, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the period ended March 31, 2016 of Aclaris Therapeutics, Inc. (the "registrant");

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)) 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) 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

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

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

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

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

Date: May 11, 2016

/s/ Neal Walker
Neal Walker
President and Chief Executive Officer
(principal executive officer)

**Exhibit 31.2**

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER**
**PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Frank Ruffo, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the period ended March 31, 2016 of Aclaris Therapeutics, Inc. (the "registrant");

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)) 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) 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

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

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

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

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

Date: May 11, 2016

/s/ Frank Ruffo
Frank Ruffo
Chief Financial Officer
(principal financial officer)

**Exhibit 32.1**

**CERTIFICATIONS OF**
**PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL OFFICER**
**PURSUANT TO 18 U.S.C. SECTION 1350,**
**AS ADOPTED PURSUANT TO**
**SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), Neal Walker, President and Chief Executive Officer of Aclaris Therapeutics, Inc. (the "Company"), and Frank Ruffo, Chief Financial Officer of the Company, each hereby certifies that, to the best of his knowledge:

**1.** The Company's Quarterly Report on Form 10-Q for the period ended March 31, 2016, to which this Certification is attached as Exhibit 32.1 (the "Periodic Report"), fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

**2.** The information contained in the Periodic Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

**IN WITNESS WHEREOF**, the undersigned have set their hands hereto as of the 11th day of May, 2016.

| | |
|---|---|
| /s/ Neal Walker | /s/ Frank Ruffo |
| Neal Walker | Frank Ruffo |
| President and Chief Executive Officer | Chief Financial Officer |
| (principal executive officer) | (principal financial officer) |

* This certification accompanies the Form 10-Q to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Aclaris Therapeutics, Inc. under the Securities Act of 1933, as amended, or the Exchange Act (whether made before or after the date of the Form 10-Q), irrespective of any general incorporation language contained in such filing.